



Ninth Annual Design Awards

unique floor beauty that won't "walk off"...

Vina-Lux® **800** *Series*

Now, a vinyl asbestos floor tile with distinctive color chip styling that won't wear away under heavy, concentrated traffic. The chip pattern is distributed at every level through the full thickness of the tile. Vina-Lux 800 Series costs no more than ordinary vinyl asbestos tile...yet delivers so much more value.

The Vina-Lux 800 Series can be specified for installation over concrete — even below grade, or over wood subfloors. In 12 fashion-coordinated colors; 9"x9" size; $\frac{1}{8}$ ", $\frac{3}{32}$ " and $\frac{1}{16}$ " gauges. See Sweet's Catalog or write for samples, color charts and complete architectural specifications — no obligation, of course.

For more information, turn to Reader Service card, circle No. 323



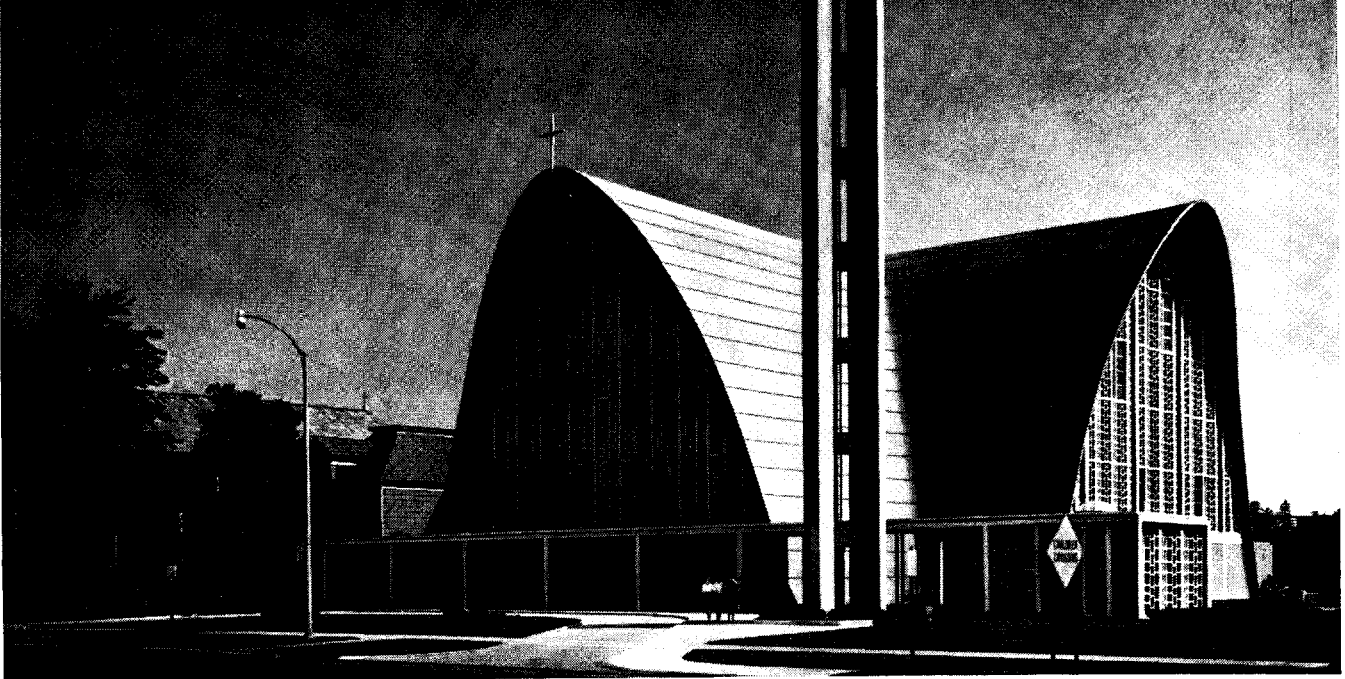
AZROCK FLOOR PRODUCTS DIVISION

Specialists in the manufacture of vinyl asbestos tile and asphalt tile flooring

UVALDE ROCK ASPHALT COMPANY • 521A FROST BANK BUILDING • SAN ANTONIO, TEXAS



Yes...the Roof too is Monolithic REINFORCED CONCRETE



Architects: Diehl & Diehl, Inc., Detroit, Michigan
Structural Engineer: R. H. McClurg Associates, Inc., Detroit, Michigan
General Contractor: Walter L. Couse & Co., Detroit, Michigan

Creative architects use monolithic reinforced concrete for buildings of distinction. Offering dramatic proof of this material's greater flexibility, is the new St. Clements Church in Center Line, Michigan. Monolithic reinforced concrete permitted the architects to design this unique shell roof and achieve a structure projecting unusual warmth and beauty both inside and out.

On your next project, design with greater freedom—design for monolithic reinforced concrete construction.



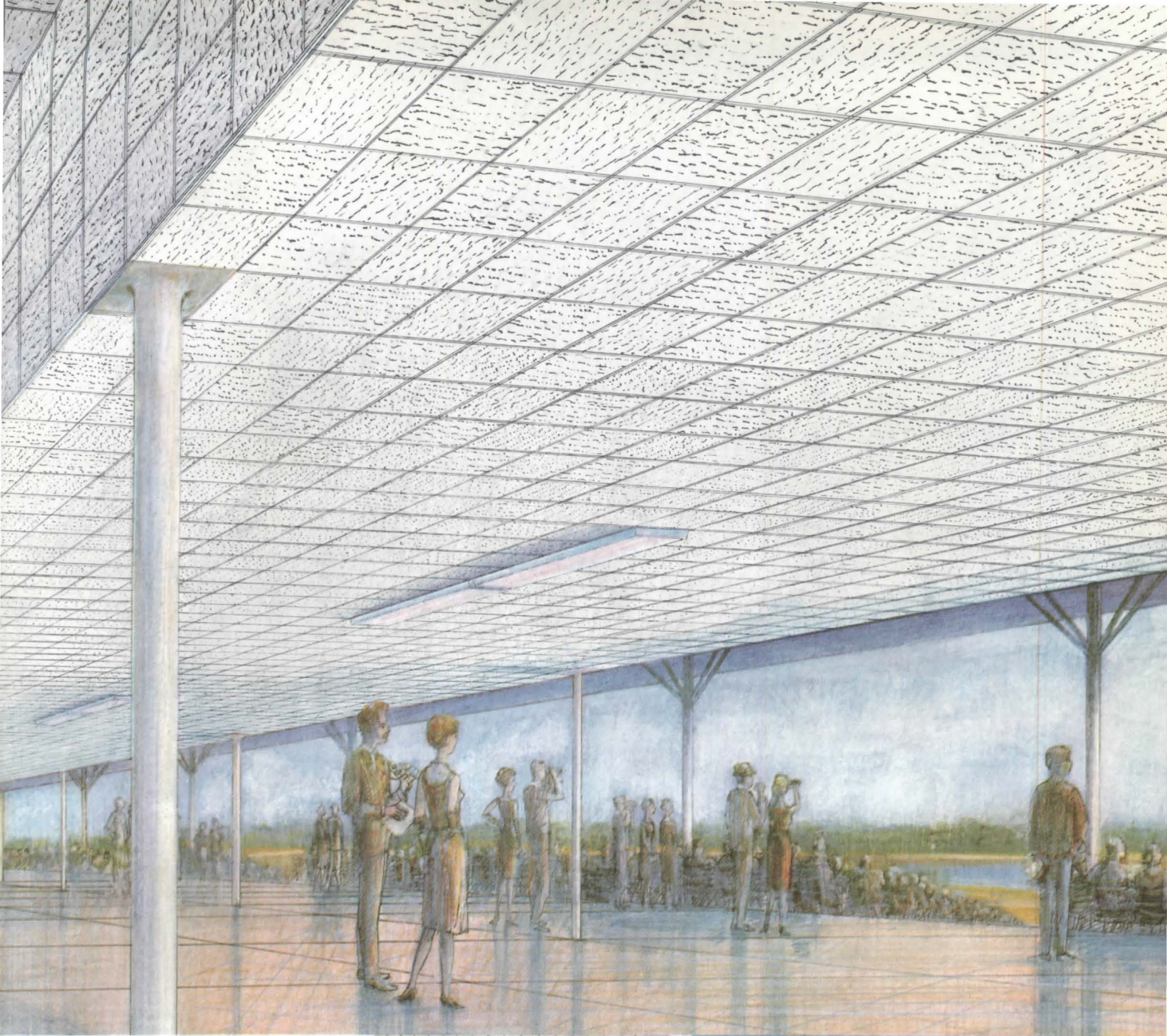
Concrete Reinforcing Steel Institute
38 South Dearborn Street
Chicago 3, Illinois



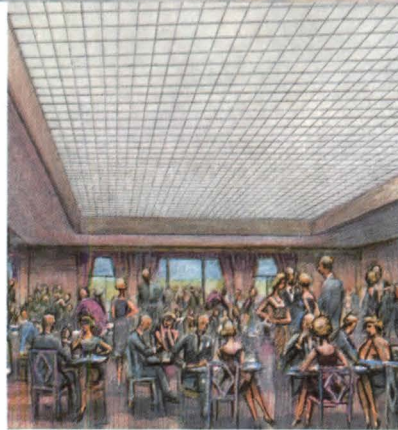
Second floor of new clubhouse, Garden State Park Race Track. Renderings by Ara Derderian

**Here it's exposed to the elements—
but this Armstrong Acoustical Fire Guard ceiling
withstands outdoor humidity, heat and cold**

Armstrong ACOUSTICAL CEILINGS
First in fire-retardant acoustical ceilings



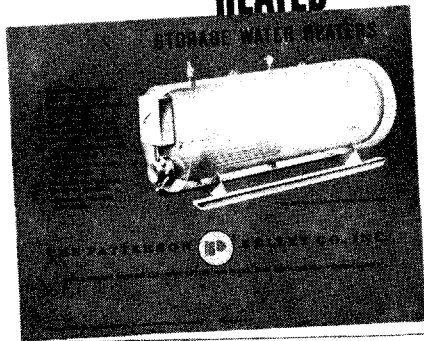
The beautiful Armstrong Acoustical Fire Guard ceiling in this clubhouse is open to the weather all year long. The performance of ordinary fissured tile under such conditions would be questionable. But Fire Guard is a high-density, mineral fiber material that has extraordinary dimensional stability under extreme conditions. That's why this fire-rated ceiling will remain acoustically efficient and highly attractive for years.



Garden State Park, Delaware Township, Camden County, New Jersey. **Architects:** Arthur Froehlich and Associates, Philadelphia, Penn., and Beverly Hills, California, R. J. Krause, Assoc. **Acoustical Contractor:** Berger Acoustical Co., Inc., Haverford, Penn.

TECHNICAL DATA: U. L. RATED: Armstrong Acoustical Fire Guard offers one- to four-hour rated fire protection for structural components. **SAVES MONEY, CONSTRUCTION TIME:** Up to 30¢ per sq. ft. by eliminating intermediate fire protection; often earns lower insurance rates; up to two months' time through dry installation. **SUSPENSION SYSTEMS:** For tile: TDR, Zee; for new lay-in units (24" x 24" x 5/8" and 24" x 48" x 5/8"): exposed Fire Guard grid system. **CHOICE OF DESIGNS:** Fissured, Classic, Full Random. For full information, call your Acoustical Contractor, your Armstrong District Office, or write Armstrong Cork Co., New Code Street, Lancaster, Pa.

NEW P-KW ELECTRICALLY HEATED



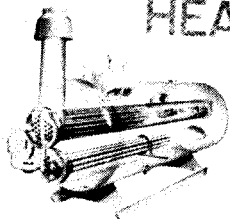
ELECTRIC: The new P-KW operates at approximately 100% efficiency. Requires only feed-wire and water connections to place heater in operation. Storage capacities range from 284 to 1,300 gallons; recovery capacities from 41 to 410 GPH.

NEW PACKAGED STORAGE WATER HEATERS

GAS: P-K's Scalefree 230* is safe, silent and automatic. It won't scale regardless of local water conditions because heat transfer occurs below the temperature at which scaling occurs. Available in storage capacities from 250 to 4,000 gallons, recovery capacities from 375 to 2140 GPH.

*patent pending

P-K SCALEFREE GAS FIRED STORAGE WATER HEATERS



THE PATTERSON-KELLEY CO., INC.
EAST STROUDSBURG, PENNSYLVANIA

P-K gas and electric storage water heaters are now offered as pre-engineered packages with components selected to give you a balanced water heating system. Units are ready for simple hook-up. No complicated piping or electrical work is required. Controls, instruments and safety measures are included. No foundation is required. Horizontal units skid easily into place on integral support skids. Factory insulation further reduces costs and avoids the problems of on-the-site insulating. All in all, pre-packaging reduces dollar investment; eliminates up to 90% of installation time; eliminates errors in component selection; and consolidates responsibility in a single source.

P-K storage water heaters are designed strictly for industrial and commercial water heating requirements. Shell sections are available in steel, copper-silicon, copper lined and with special formula C-17 Pre-Krete Cement lining. Call your local P-K representative for full details. Or mail the coupon for catalogs to: The Patterson-Kelley Co., Inc., East Stroudsburg, Pa.



Patterson  Kelley[®]

Water Heater Division,
124 Morgan Ave., E. Stroudsburg, Pa.

Please send your:

_____ Catalog P-KW-1, "New P-KW Electrically Heated Storage Water Heaters"

_____ Bulletin 4-B, "P-K Scalefree Gas-Fired Storage Water Heaters"

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THIS MONTH IN P/A

The World's Largest Architectural Circulation

- 57 NEWS REPORT (*For Full Contents, See Page 57*)
New Jersey architects create new look in Trenton . . . Young Filipino designs cultural center . . . MIT's expansion program progresses with new designs . . . Ground broken for Yale's Art and Architecture Building . . . Three-masted giant for Montreal . . . PRODUCTS . . . MANUFACTURERS' DATA.
- 112 EDITORIAL FEATURES (*For Full Contents, See Page 111*)
This issue is devoted to the results of the ninth annual P/A Design Awards Program: the jury awarded, in addition to the First Design Award, a total of two Awards and nine Citations from among six building categories . . . A summary of the jury discussion indicates a shift away from the "chaoticism" evident last year.
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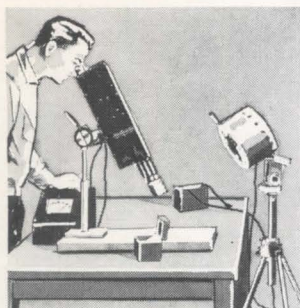
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VOLUME XLIII, No. 1

SYLVANIA LIGHTING WITH MULTI-LAYER *polRized* IMPROVE VISUAL



THE RESEARCH

In 1958 H. Richard Blackwell, Ph.D.,* reported the results of an 8-year study** to determine the amount of illumination required for the human eye to perform various seeing tasks. These findings served as a basis for The Illuminating Engineering Society's official Recommended Footcandle Levels for all types of Visual Tasks.

In the original report, Dr. Blackwell indicated that his work had been performed under ideal glare-free conditions.

A second report by Dr. Blackwell*** specifically on the subject of reflected glare was presented to the National Technical Conference of the Illuminating Engineering Society on September 26, 1961. Covering two years of research, this report emphasizes the importance of increasing task contrast by reducing reflected glare and the effect of this action on visual efficiency. It also includes a recommended new method of evaluating quantitatively the effectiveness of lighting for visual tasks, taking into consideration the reflected glare on the task as well as the quantity of illumination required.

Dr. Blackwell's research also shows that, through the use of efficient multi-layer polarizing light panels, reflected glare can be reduced considerably. As a result of increasing task contrast by reducing this reflected glare through polarized light, the visual efficiency of light is greatly increased . . . in fact, an improvement of 100% over unpolarized light can be expected in most practical room applications when the same lighting equipment layout is used.

*Professor and Director, Institute for Research in Vision, The Ohio State University, Columbus, Ohio.

**"Development and Use of Quantitative Method for Specification of Interior Illumination Levels on the Basis of Performance Data," published in the June, 1959 issue of Illuminating Engineering, pages 317-353.

***"A General Quantitative Method" for Evaluating the Visual Significance of Reflected Glare, Utilizing Visual Performance Data."

(*) Trade Mark of PolRized Panel Corporation.

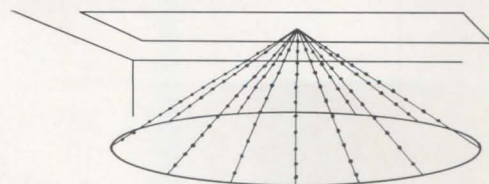
THE PRODUCT

No one invented polarization and no one owns it! Polarization has been known for hundreds of years but it was only forty years ago that a practical, commercial use was discovered. This of course refers to the absorption-type, linear polarizing materials commonly used today for sunglasses, camera filters, 3-Dimensional projections, etc. However, these polarizing materials are not efficient transmitters of light since they absorb a high percentage of visible light.

In more recent years, the concept of polarizing light at the source by means of multi-layer polarizers was developed. These PolRized panels as now used in Sylvania lighting equipment increase task contrast by the reduction of reflected glare thus improving visibility and visual acuity compared to tasks viewed by unpolarized illumination.

Multi-layer constructed PolRized panels plane-polarize the light with a high transmission and produce a radial light distribution or cone polarization.

Sylvania fixtures using PolRized Panels transmit multiple reflections and refractions of light. This process is known as Reflux Polarization. The additive effect of the transmitted light provides a practical and efficient shielding medium for direct-distribution type luminaires.



The sketch illustrates how each pinpoint of light is polarized in every direction around the fixture. This Radial Distribution or Cone Polarization is emitted from each point on the surface of the PolRized Panel.

The radial distribution from Sylvania fixtures with PolRized lighting panels is of real significance in modern lighting practice since we recognize that visual tasks are performed in practically all directions and at varying angles to the light source. With the flexibility of modular construction, proper overall lighting is more desirable and practical than ever.

Over two years of objective scientific research at Ohio State University's Institute for Research in Vision proves that Reflected Glare is much more important for visual effectiveness than previously believed . . . that Multi-Layer PolRized(*) lighting panels increase task contrast by reducing Reflected Glare substantially to make illumination better to see and work by.

FIXTURES PANELS, REDUCE REFLECTED GLARE... EFFECTIVENESS 100%!

WHAT THIS MEANS TO YOU . . . AND TO THE LIGHTING OF THE FUTURE

Blackwell's findings and the development of PolRized Panels represent together a significant breakthrough in the field of lighting. No longer will high footcandle levels be the only measured criterion of good lighting. Reflected glare and its effect on task contrast and visual acuity must be considered when evaluating and designing lighting requirements.

This research proves that polarization of the light source always improves vision. It makes seeing easier by eliminating "veiling glare." Obviously this improvement in seeing conditions means more comfortable and practical lighting and should result in higher working efficiency and accuracy. Visual mistakes and eye fatigue should both be reduced considerably.

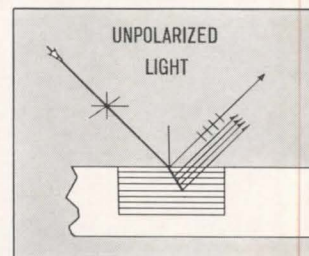
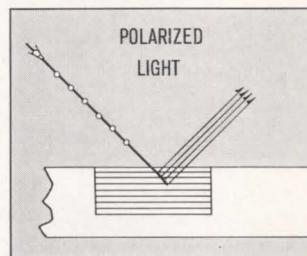
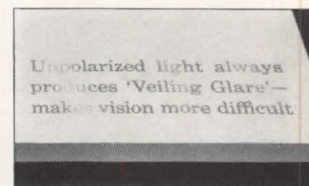
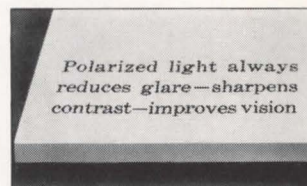
The studies show further that polarization enhances colors as well as improving vision . . . and that the benefits of polarization are realized more fully when used in a medium to large area and where the directions and angles of the seeing tasks vary. Thus, PolRized illumination is especially beneficial to general offices, schools, stores, banks and other commercial applications.

With the development of PolRized Lighting Panels, higher footcandle levels for precision tasks can now be obtained with direct lighting without the corresponding increase in reflected glare.

Because of the significance of this research, Sylvania will make available immediately PolRized Panels for its direct distribution

fixtures and its overall luminous "Sylva-Cell" ceiling system.

Make certain you get full information on these products for all of your future lighting projects.



Sketches show how polarized light enhances colors by eliminating surface reflectance of the light source. This reflectance dilutes true color of substance.

Use this coupon to obtain more complete data on Sylvania fixtures with PolRized lighting panels.

LIGHTING FIXTURES BY

SYLVANIA
SUBSIDIARY OF
GENERAL TELEPHONE & ELECTRONICS



Sylvania Lighting Products, Dept. P
One 48th Street, Wheeling, W. Va.

- ☐ Send more information on Sylvania Fixtures with PolRized Panels
☐ Have Sylvania Representative call on me to discuss PolRized Panels

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COMPANY _____

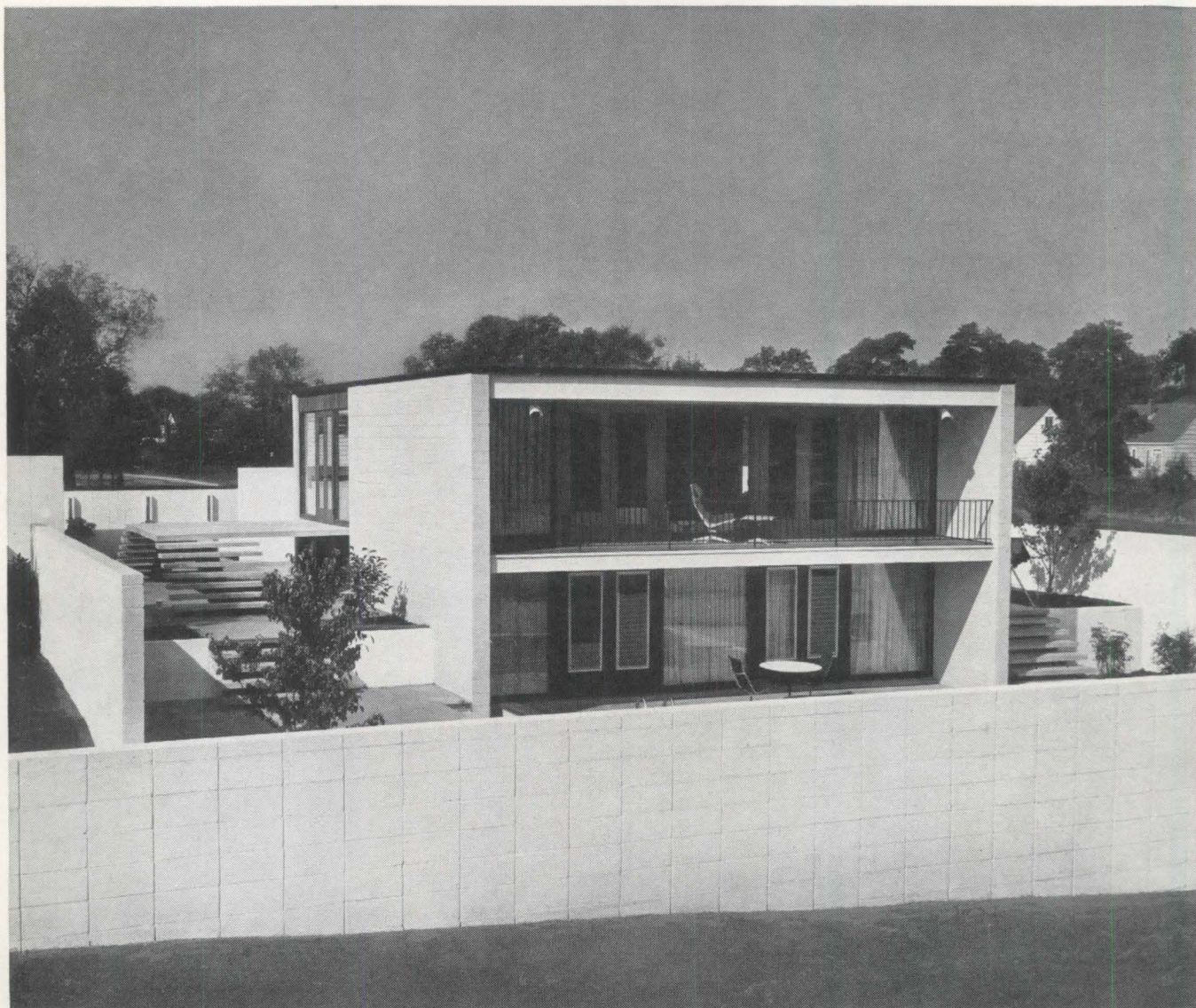
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1961
CONCRETE
INDUSTRIES*

HORIZON

IS THE SUCCESS



NATIONAL DESIGN AWARD WINNER—The house chosen by a distinguished panel of architects and builders for its many excellent design features. Prize to architect: trip for two to any place in the world.

South Plainfield, New Jersey. Architect: Kuhn & Drake. Builder: R & S Builders

REGIONAL DESIGN AWARDS (\$500.00 cash awards)

EASTERN REGION:

Mashpee, Massachusetts
Architect: Robert Damora
Builder: Emil Hanslin Associates, Inc.

SOUTHEASTERN REGION:

Winston-Salem, North Carolina
Architect: Don Hines, Stinson-Hall Assoc.
Builder: William T. Wilson, Wilson Bros.
Lumber Co.

MIDWESTERN REGION:

Rockford, Illinois
Architect: C. Edward Ware, AIA
Builder: Wojcik Construction Co.

WEST CENTRAL REGION:

Hutchinson, Kansas
Architect: Miller, Hiatt, Hockett,
Dronberger & Arbuckle
Builder: Warren Schmitt Construction Co.

SOUTH CENTRAL REGION: Odessa, Texas

Architect: Peters and Fields
Builder: Tadlock Homes, Inc.

ROCKY MOUNTAIN REGION: Lehi, Utah

Architect: Dixon and Long
Builder: Leland J. Wells

WESTERN REGION: Lynnwood, Washington

Architect: Dan F. Miller, AIA & Assoc.
Builder: Stewart & Potter



HOMES PROGRAM STORY OF THE YEAR!

Two million people during National Home Week visited 82 model Horizon Homes and got a new idea of the beauty and livability of modern concrete. 16 architects and builders won special awards in design and merchandising competition.

The nation's first Horizon Homes program was an outstanding success! Ask the architects and builders who participated—built homes to their own designs. Before the first weekend was over, nearly all the model homes had been sold.

Across the country, more than 500 reproductions of Horizon Homes have been purchased. One architect-builder team reports it will spend the next year just filling orders for the house displayed. Another team is planning a 130-acre community of modern concrete houses, thanks to the tremendous buyer interest that

has been generated.

Everywhere, architects and builders report the effectiveness of the wide publicity and promotional support—the enthusiastic response accorded Horizon Homes.

Again in 1962 architects and builders are offered a big opportunity to team up and share in nationwide programs developed expressly to showcase the freshest ideas in concrete and *help sell more homes.*

For details, contact any office of the Portland Cement Association.

PORTLAND CEMENT ASSOCIATION

A national organization to improve and extend the uses of concrete



NATIONAL MERCHANDISING AWARD WINNER— The house that received the most effective selling support in the opinion of the special awards jury. Prize to builder: trip for two to any place in the world.

Avon, Connecticut. Builder: The Beckenstein Brothers, Green Acres, Inc. Architect: Kane & Fairchild.

REGIONAL MERCHANDISING AWARDS (\$500.00 cash awards)

EASTERN REGION:

Erie, Pennsylvania
Builder: Pastore Brothers

SOUTHEASTERN REGION:

Columbus, Georgia
Builder: Ray M. Wright, Inc.

MIDWESTERN REGION:

Columbus, Indiana
Builder: Charles Gelfius

WEST CENTRAL REGION:

Springfield, Missouri
Builder: Ralph K. Manley

SOUTH CENTRAL REGION:

El Paso, Texas
Builder: Willis Construction Co.

ROCKY MOUNTAIN REGION:

Albuquerque, New Mexico
Builder: Frank Marberry

WESTERN REGION:

Lewiston, Idaho
Builder: Walter Parr

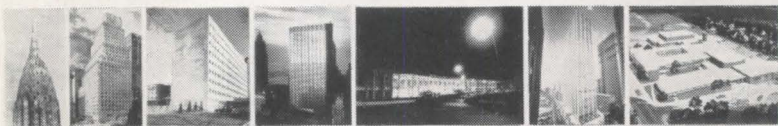
**Concrete Industries Horizon Homes Program, sponsored by the Portland Cement Association in cooperation with the National Ready Mixed Concrete Association and the National Concrete Masonry Association.*

AIA FILE No. 12-H
1961

ARCHITECT'S GUIDE TO Nickel Stainless Steel Flashings

... design principles & details

... specification data



AIA FILE No. 12-H
1961

**Design
principles
and details**

**Specification
data**

INCO ANNOUNCES

a comprehensive reference manual on Nickel Stainless Steel Flashings

Now, for the first time, architects, engineers and specifications writers can get complete, up-to-date information on the design, specification, fabrication and installation of nickel stainless steel flashings. It's all here in this new 24-page booklet.

In addition to discussing flashings for both masonry and curtain wall construction, this new booklet answers questions about the properties of nickel stainless steels and why certain steels perform better than others for specific flashing jobs. It shows how to cut costs by using lighter gauges

without sacrificing performance. The text is illustrated with twenty detail drawings taken from actual installations.

Yours for the asking. "Architect's Guide To Nickel Stainless Steel Flashings" will be off the presses soon. To get this valuable booklet on your reference shelf, simply drop us a postcard today.

THE INTERNATIONAL NICKEL COMPANY, INC.

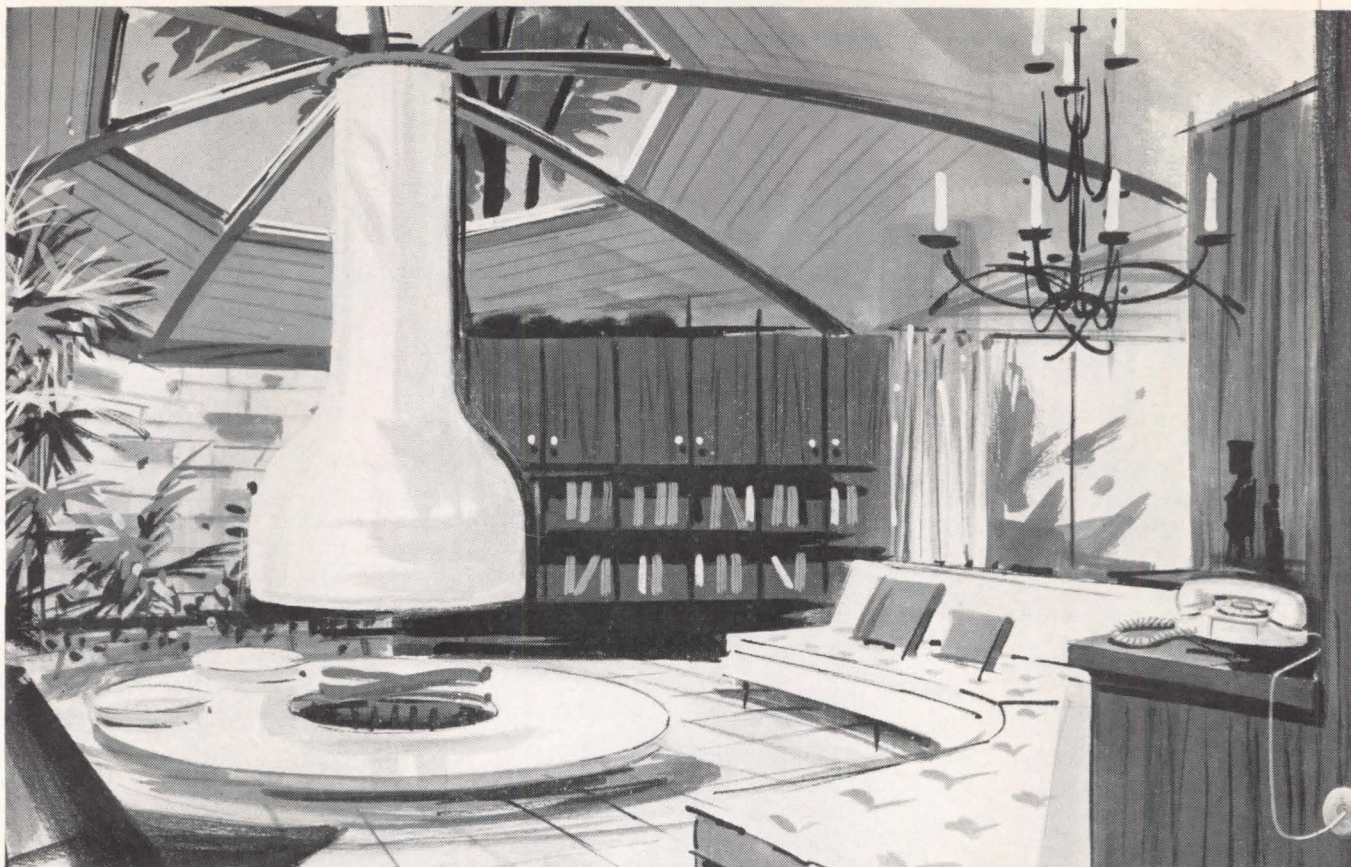
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New York 5, N. Y.

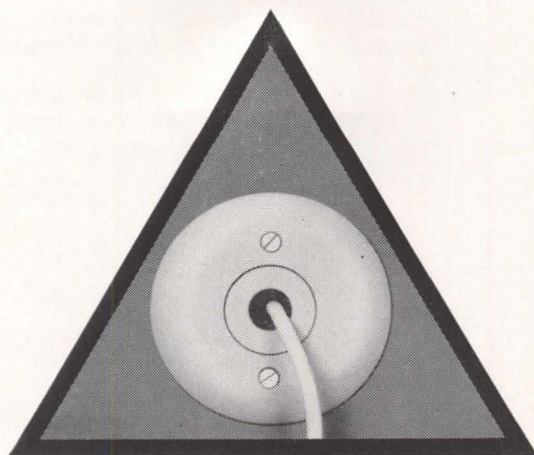
INCO NICKEL

NICKEL MAKES STAINLESS STEEL PERFORM BETTER LONGER



For details of home installations, see Sweet's Light Construction File, 11c/Be. ▲

TELEPHONE PLANNING makes homes more livable, more salable. When you specify built-in telephone outlets and wiring concealed within walls, you provide for a family's future telephone needs, protect the interior beauty of homes. **Bell Telephone System**



Call your local Bell Telephone Business Office for help in telephone-planning your homes.

For more information, turn to Reader Service card, circle No. 321

A Reply To Philip Will, Jr., FAIA

"... it is the architect's first need that the products he specifies perform as advertised ... Quality must be tested and demonstrated ..."*

At the Pittsburgh Testing Laboratory, structural facing tile undergoes tests for crazing (steam pressure of 150 pounds per inch); staining (ink is applied to unit surfaces); chemical resistance (units are submerged in hydrochloric acid and potassium hydroxide for three hours); opacity (ink is applied along edges); compression (according to Standard Methods of Sampling and Testing Brick, ASTM Designation C67-57); fire (100 sq. ft. wall section, exposed to fire, must protect cotton waste from ignition from flame or gases with temperature of unexposed surface rising not more than 250°F.). In-the-wall performance has been studied for 35 years.

"It is the evident and irritating fact that all architects would like to know exactly how much a given material will cost per unit in place ..."*

This is a tough one. However, the Facing Tile Institute has made cost studies in New York, Boston, Washington, Baltimore, Pittsburgh, and Nashville to establish average in-the-wall costs for facing tile alone and in comparison with other materials. Other areas will be similarly studied upon request.

"... we actually place more faith in reputation than performance guarantees ... under the heading of Producer Responsibility, I would like to suggest that they must control the uses to which their products are placed ..."*

Only the six members of the Facing Tile Institute underwrite costs of laboratory and field testing, research, technical aid, production to meet job schedules, standardization of performance standards, shapes, dimensions, colors, and textures. They are: Charles-

ton Clay Products Company, Charleston 22, West Virginia; McNees-Kittanning Co., Kittanning Pa.; Metropolitan Brick, Inc., Canton 2, Ohio; Natco Corporation, Pittsburgh 22, Pa.; Stark Ceramics, Inc., Canton 1, Ohio; and West Virginia Brick Co., Charleston 24, West Virginia. Each manufacturer specifies limitations of use for his products.

"... we need choice in dimension or capacity, color, texture, methods of installation or application ..."*

Each FTI member produces four different series of units (glazed or unglazed, smooth or textured) embracing dimensionally-integrated stretchers, starters and miters, corners and closures, sills, caps and lintels, cove base stretchers and fittings. For details, see Structural Clay Facing Tile Handbook 59HB. Each FTI member produces 20 standard field colors and nine accent colors developed by color consultant Faber Birren. Each produces many additional colors of his own. Small unit flexibility allows infinite variations in application; for installation methods see "Specifications—Glazed and Unglazed Structural Facing Tile."


"Modular measure ... coordination with other building components ... chemical affinity ... full exploitation of the inherent qualities of the constituent materials ... (are considerations) in seeking good design ..."*

FTI has participated in the modular measure movement since the Institute was founded in 1933. All structural facing tile produced by FTI members is designed for modular coordination on a four-inch grid. It is chemically inert. It offers beauty, sanitation, fire resistance, low sound transmission, structural use, and a host of other advantages. It copies nothing and is imitated imperfectly.

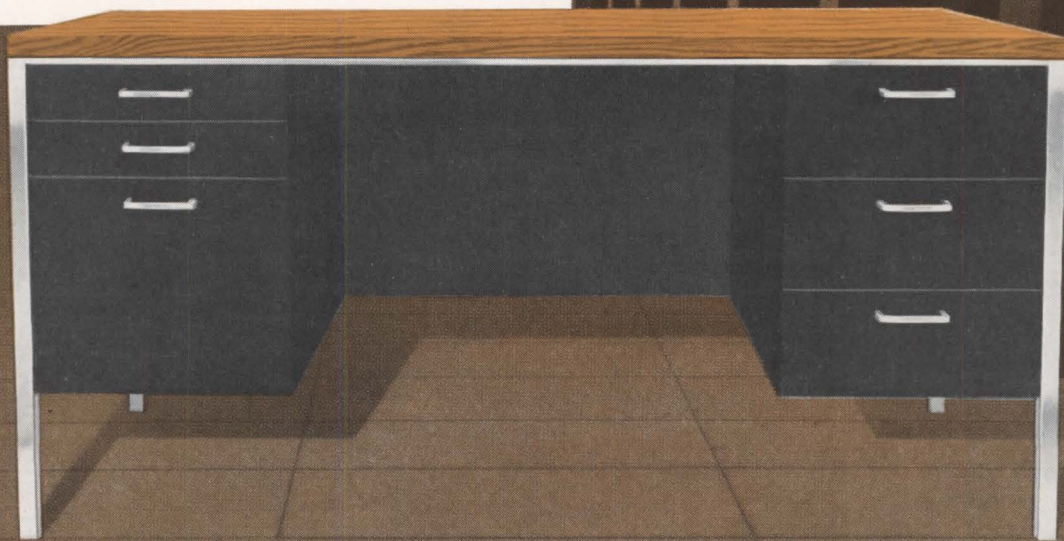
**From his speech to the Building Products Executive Conference, Washington, D. C., Nov. 3, 1961.*

FACING TILE INSTITUTE

1520 18th St., N.W., Washington 6, D.C. | 826 Chrysler Bldg., New York 17, N. Y. | 2556 Clearview Ave., Canton 8, Ohio



Built to live up
to the buildings
you design



1060F, one of many 1000 SERIES models selected by Union Carbide for their New York headquarters

IT'S 1000 SERIES BY GF... the desk styled specifically to complement today's smart business interiors. Its all-flush surfaces and clean, uncluttered lines are the result of close collaboration between one of America's leading architectural firms and GF's own designers. And, of course, it's built to GF's exacting quality standards. Before you select any desk, see 1000 SERIES at your nearby GF branch or dealer. Or write Dept PA-16 for our new color brochure. The General Fireproofing Co., Youngstown 1, Ohio.

Photo by Peter Blake

GF
BUSINESS FURNITURE

“All exposed and unexposed surfaces shall be of STAINLESS STEEL..”



Cafeteria and Executive Kitchen, Continental Grain Co., Offices: New York City. Designed by Designs for Business, Inc., New York, N. Y. Fabricated by Stainless Food Equipment Co., Newark, N. J. Installed by Ben Mernit, New York City

The specifications for this executive cafeteria called for all kitchen metal surfaces, both exposed and unexposed, to be constructed of stainless steel. Only *lifetime* stainless steel can offer the durability and ease of maintenance necessary for maximum sanitation in food handling.

MICROOLD STAINLESS STEEL was chosen for its consistent uniformity of gauge, outstanding finish and well-known fabricating qualities.

Why not investigate the advantages of stainless steel for your next project?



WASHINGTON STEEL CORPORATION

1-M WOODLAND AVENUE • WASHINGTON, PENNSYLVANIA

WHO LOOKS AT THE ROOF?



The Solomon R. Guggenheim Museum is one of the most interesting architectural innovations in years. Art lovers often look up to admire the *ceiling* of this building ... but no one looks at the *roof*—or *has* to! It's a special Ruberoid roof, expertly built-up with Ruberoid special roofing bitumen.

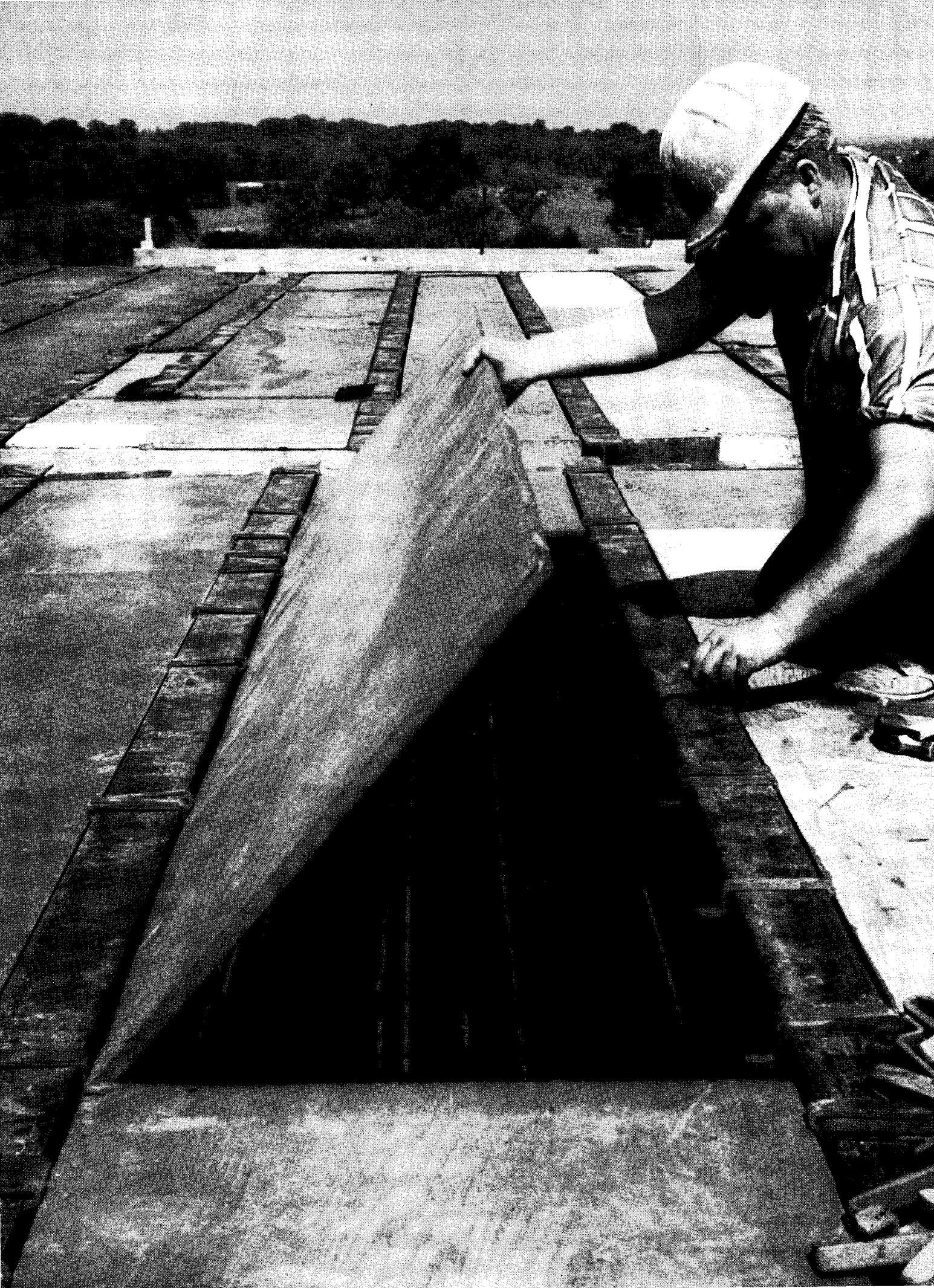
This weather-tight roof offers the priceless protection a museum must have. On *your* next project, a Ruberoid built-up roof, applied by an approved Ruberoid roofer, will assure similar trouble-free protection. Specify Ruberoid to be sure of the best in built-up roofs!

THE SOLOMON R. GUGGENHEIM MUSEUM, NEW YORK, N. Y.
Architect: Frank Lloyd Wright
Roofing Contractor: United Roofing & Waterproofing Co.
Ruberoid Specifications: Asphalt Felt and Special Roofing Bitumen

RUBEROID®

733 Third Avenue, New York 17, N. Y.

For more information, turn to Reader Service card, circle No. 385



ECONOMY IN APARTMENT HOUSE CONSTRUCTION



Substantial savings in both cost and time were effected by combining Jones & Laughlin lightweight sections with reinforced concrete and structural steel frames in the construction of the 9-story 11 Slade Apartments for Mullan Contracting Company of Baltimore. Mr. Thomas F. Mullan, Jr., reported that the design enabled his firm to complete one floor every four days instead of the six usually required for a job of this size.

In the construction of the apartment, 2-story steel columns were set in place immediately followed with column ties and wind bracing. Girders were reinforced concrete members, formed between columns through the use of Junior Channel forms supported on removable column seat angles.

The 12" Junior Beams and 14" Light Beams used as secondary floor members were spaced on top of Junior Channel girder forms at 24 $\frac{3}{4}$ " flange-to-flange, and extend 4" into each concrete girder. After aligning columns and placing intermediate supports under the girder forms, cast iron clips (known as "K-Clip") were hooked over the top flanges of the J&L Junior Beams on approximately 30" centers. Plywood forms supported on the protruding tails of the K-Clips form the concrete floor slab. With the K-Clip System, the concrete slab is in contact with the top and sides of the flanges of the floor beams, providing lateral bracing during construction and a rigid finished floor. Easy removal of the forms and re-use after cleaning provide real savings in form cost.

To complete the J&L Junior Channel girder forms, prior to placing of girder reinforcing and wire mesh in the floor slab, removable metal bulkheads were placed between the floor beams.

The ease of handling lightweight steel beams, the re-use of all forms and the time savings in forming and stripping the concrete slabs all combined to produce outstanding economy.

Another attractive Mullan apartment, 3900 North Charles in Baltimore, is now being constructed, utilizing the same cost-saving design features used in the 11 Slade Apartments.

Jones & Laughlin Steel Corporation

3 Gateway Center, Pittsburgh 30, Pennsylvania



Architect—Joseph Foutz
Structural Engineer—Edward S. Klausner
Associate Engineer—Wallace & Gutberlet



Sun Self-Serv Drug Stores specify **TERRAZZO**

for new Supers

Study by Chicago-area chain proves that asphalt tile costs 6.8% more, vinyl 19.8% more, over 10-year period.

Terrazzo floors will be used in the chain of super drug stores planned by Sun Self-Serv Drug Stores, a division of General Stores Corporation. Five of these stores with a total floor area of 40,000 square feet have already been opened in the Chicago area.

The decision to use Terrazzo was the result of a study comparing total cost, including installation and maintenance, of Terrazzo, asphalt tile and vinyl tile floors in drug stores. Savings of 20c per square foot with Terrazzo were revealed. Later years will show an even greater saving, the Sun Self-Serv Drug Stores' study indicates, because asphalt tile must be replaced every five years, while Terrazzo will last the life of the building.

Results of the study are summarized below:

Comparison of Total Cost of Terrazzo and Asphalt Tile Floors Over 10-Year Period

ASPHALT TILE FLOOR*

Total installation cost per sq. ft. for 10 years	.62
(average original installation cost of \$.31 per sq. ft.; must be replaced every 5 years)	
Total cleaning cost per sq. ft. for 10 years	1.70
(total daily cleaning cost per sq. ft. of \$.000466 x 365 days x 10 years. Includes daily cost per sq. ft. of \$.000366 for labor, \$.000100 for supplies)	
Cost per sq. ft. of stripping, waxing, buffing of floor every 90 days for 10 years	.80
(cost per sq. ft. of \$.02 x 4 times yearly x 10 years)	
Total cost per sq. ft. including installation and maintenance over 10 year period.	3.12

TERRAZZO FLOOR

Total installation cost per sq. ft. for 10 years	1.40
(average original installation cost of \$1.40. Replacement not required)	
Total cleaning cost per sq. ft. for 10 years	1.46
(total daily cleaning cost per sq. ft. of \$.000399 x 365 days x 10 years. Includes daily cost of \$.000366 for labor, \$.000033 for supplies)	
Cost per sq. ft. of stripping floor 3 times in 10 years	.06
Total cost per sq. ft. including installation and maintenance over 10 year period.	2.92

*Vinyl tile used in some Sun Self-Serv Drug Stores has a total cost over a 10-year period of 38c per square foot more than asphalt tile and 58c per square foot more than Terrazzo.

Free AIA kit upon request. Field representatives available for consultation. Catalogued in Sweet's.

Member Producers' Council

THE NATIONAL TERRAZZO AND MOSAIC ASSOCIATION

N.A.D.A. Building, 2000 K St., N.W., Washington, D.C.



In the new \$19,800,000 D.C. Stadium 45 WASHROOMS—ALL KOHLER EQUIPPED

Double decked, covering ten acres, with $3\frac{1}{2}$ acres of playing field and rotating seating sections to adapt it to any sort of event, the new District of Columbia Stadium is an outstanding example of architectural design.

Seating capacity varies with the use of the field—50,000 seats for football, 43,500 for baseball. Twenty-six concession stands, 48 turnstiles and three passenger elevators are a clue to the spectator conveniences that have been built into the new stadium. It will be the home stadium of the Washington Senators, the Washington Redskins and the George Washington University Colonials.

The 45 public washrooms are located in convenient areas on each of the stadium's levels. Kohler fixtures and All-Brass fittings are used throughout.

To simplify handling the equipment at the site, Kohler provided "special service" handling.

All batteries of urinals were pre-assembled and fitted at the factory, each crate marked and keyed for the particular washroom for which it was intended. Shipment was made for one level at a time so that all Kohler equipment would arrive as it was needed.

Architects and engineers were Dahl-Ewin-Osborn, a consolidation of The George L. Dahl, Architects and Engineers, Ewin Engineering Associates and Osborn Engineering Corp. The combine was formed specifically for this job. McCloskey and Co. of Philadelphia was the general contractor. Lloyd E. Mitchell, Inc. of Washington, D.C. was the plumbing contractor. The distributor was Harrison Brothers, Inc. of Washington, D.C.

Again, in a major building construction, the selection of Kohler fixtures and fittings is testimony of Kohler lasting quality.

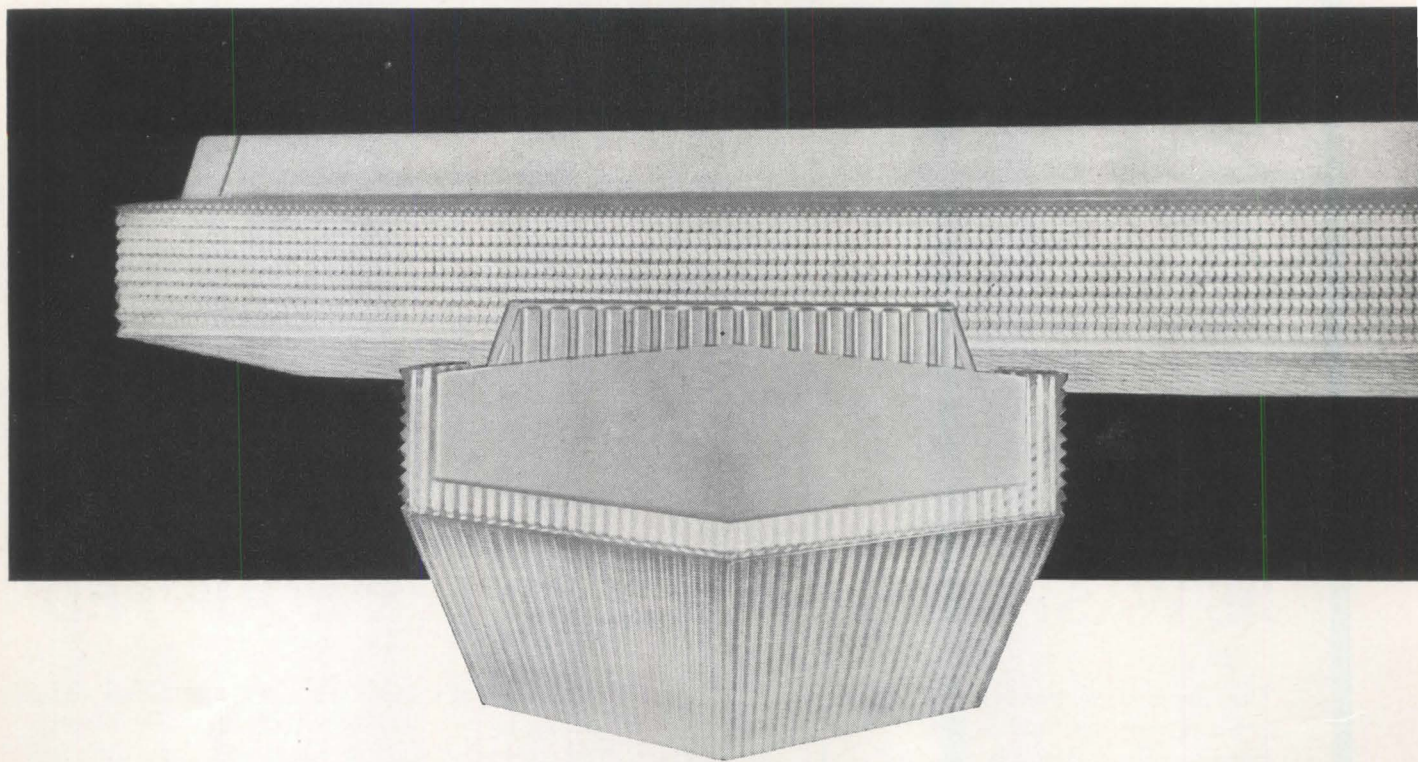
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This is Opticon... a fixture designed to prove that a modest budget need not mean the sacrifice of lighting performance, aesthetic standards, or top quality construction. The lens, for instance, is injection molded in a single, crystal-clear unit 48" long. Secured by safety hinges, it swings away from either side for fast relamping without the use of tools. Its sides are patterned both inside and out with prisms that run at cross directions. The result is diffused peripheral lighting on ceiling areas for

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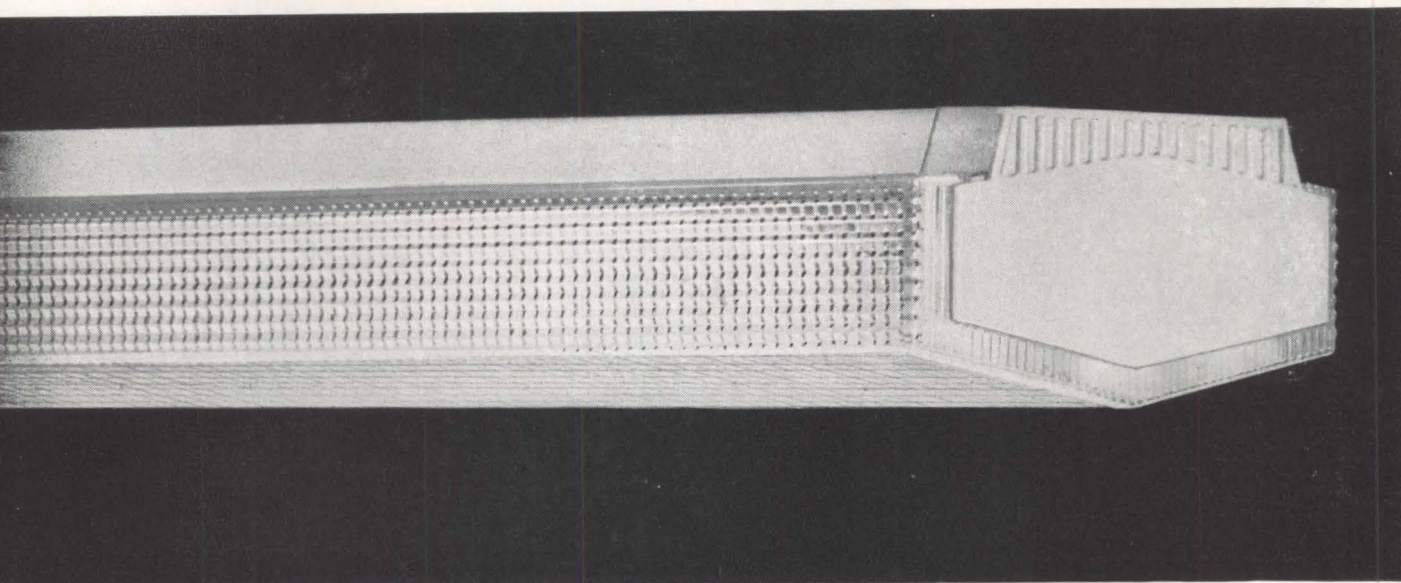
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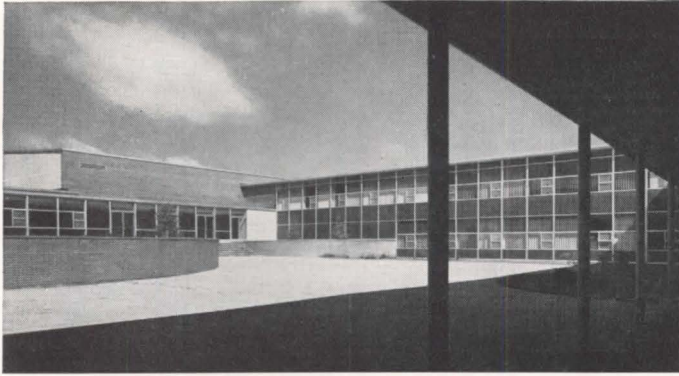
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Great Neck Junior-Senior High School, North Hempstead, L. I., New York. Architect: LaPierre, Litchfield & Partners (Alfred Hopkins & Assoc.). Contractor: Pealty & Fuhrman, Inc., New York, N. Y. Photograph by: C. V. D. Hubbard.



Carthage Junior-Senior High School, West Carthage, New York. Architect: Sargent, Webster, Crenshaw & Folley, Syracuse, New York. Contractor: John W. Rouse Construction Co., Gouverneur, New York. Photograph by: C. V. D. Hubbard.



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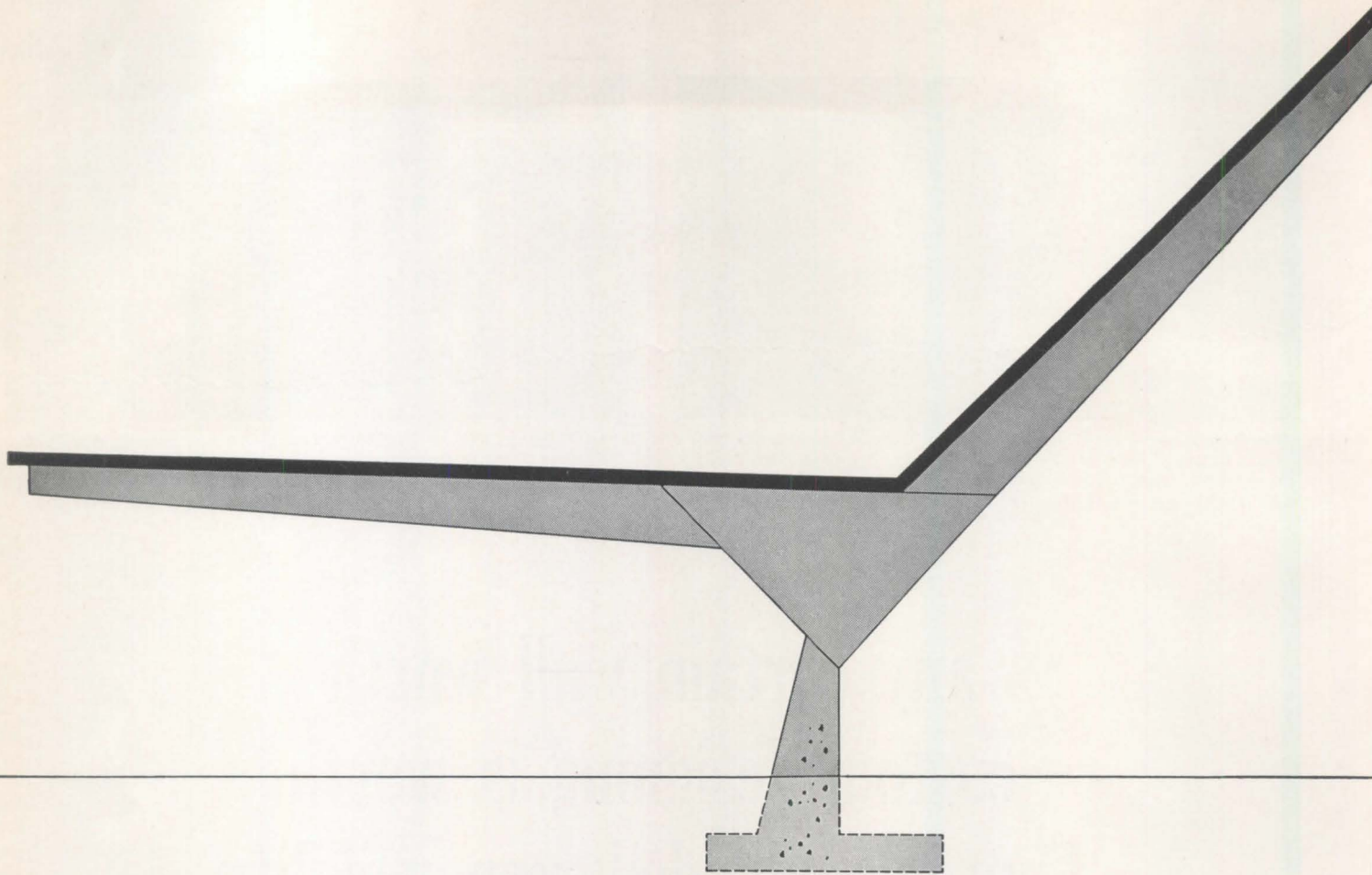
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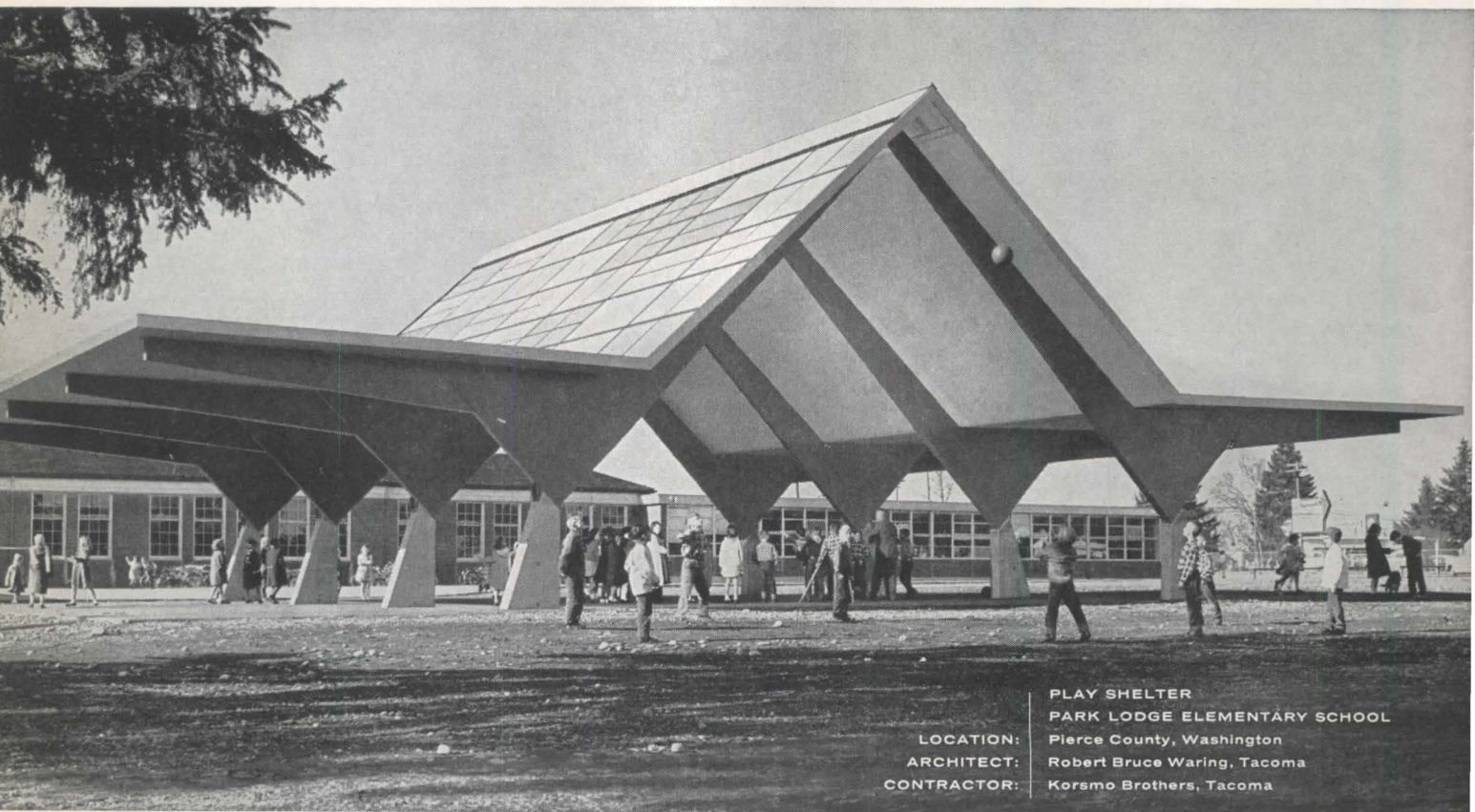
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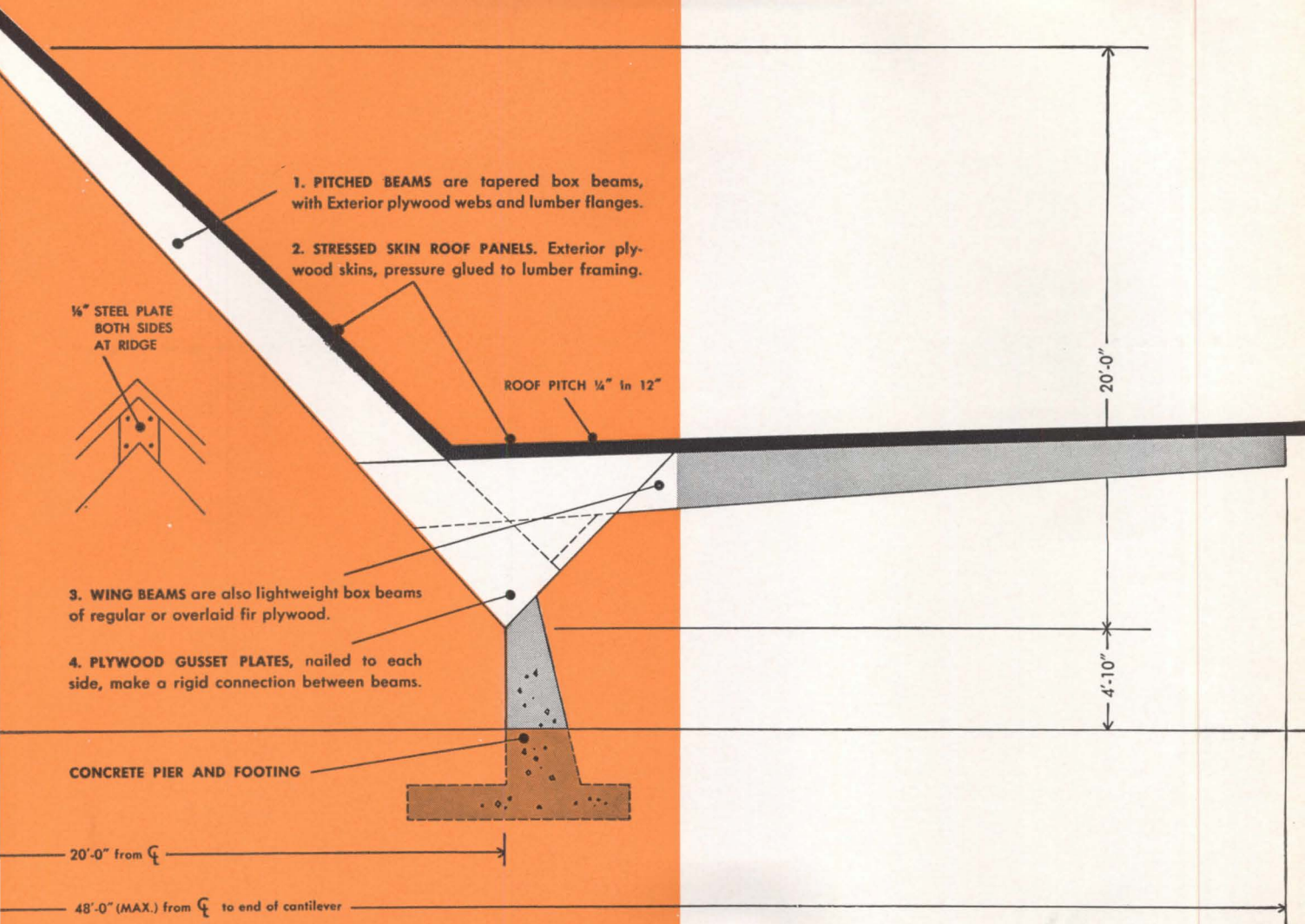
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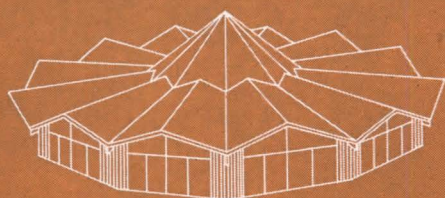
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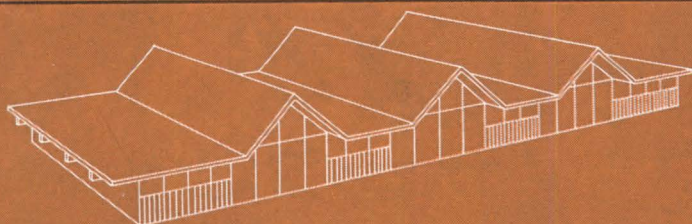
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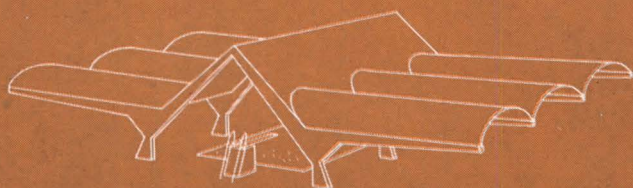
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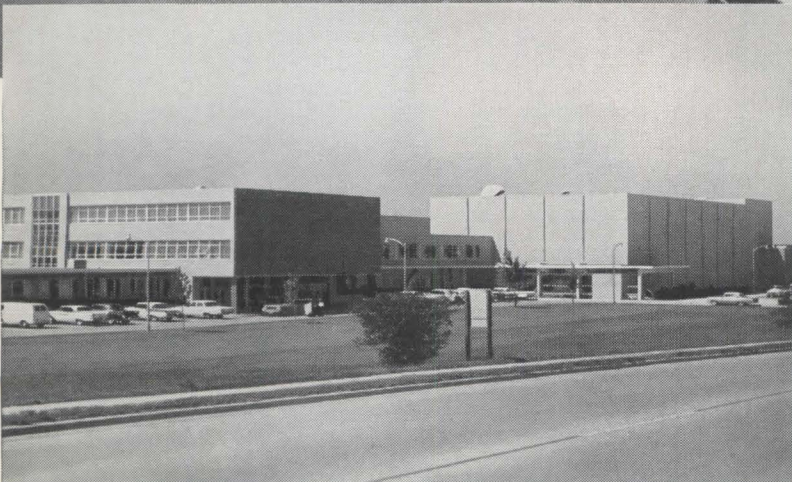
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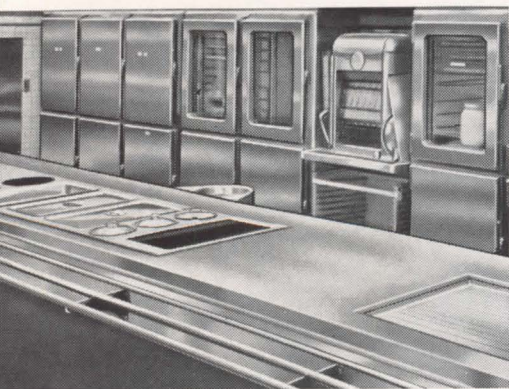
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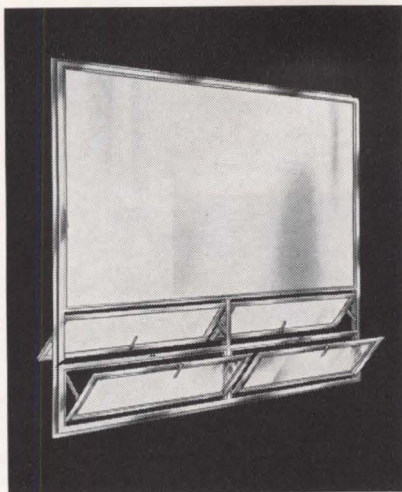


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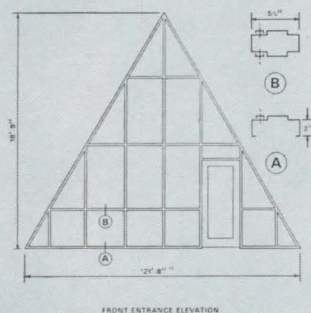


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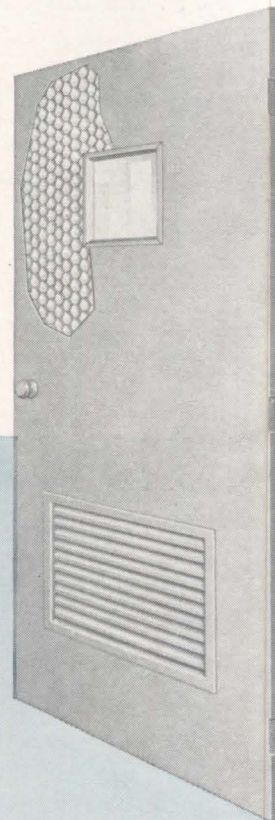
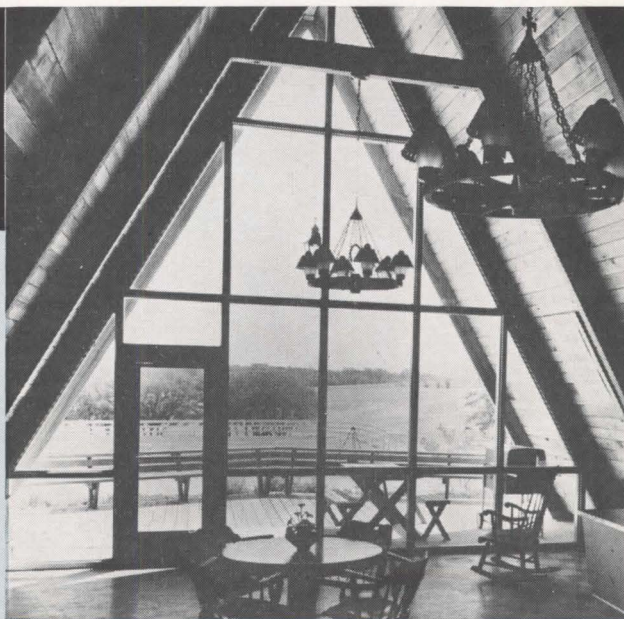
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Steelcraft's Dallas distributor, Samuel A. Ellsberry Co. fabricates locally this unusual job using standard sections for a lodge owned by Owens Country Sausage, Inc.; Richardson, Texas; architect, Billy R. Keller.



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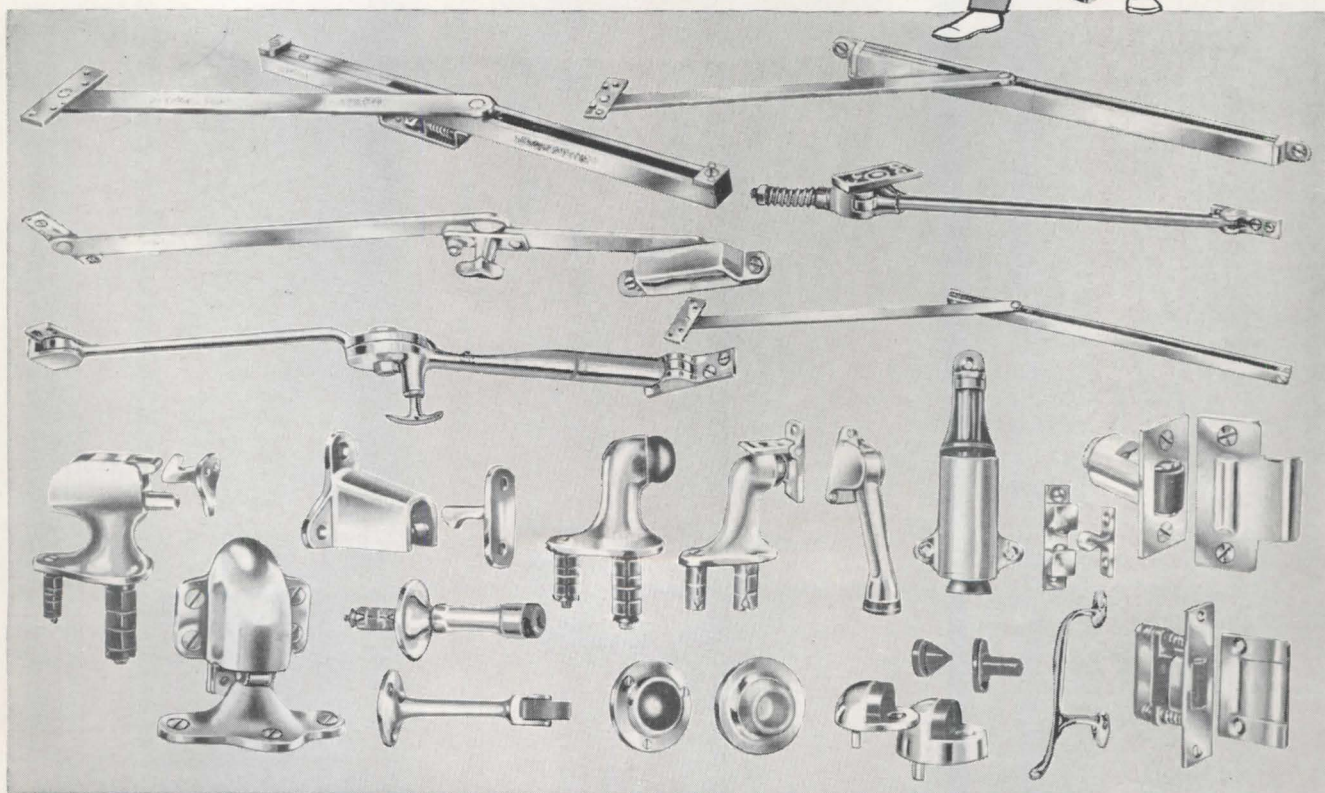
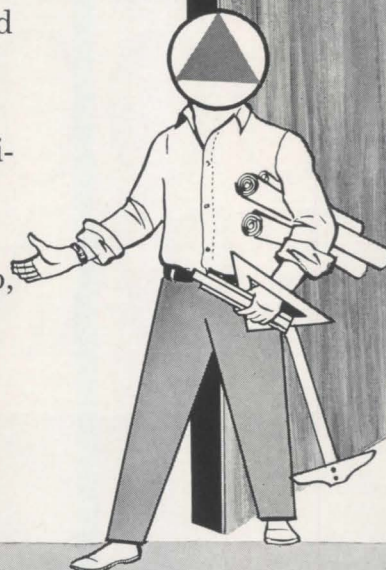
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... quality, the finest in materials and workmanship,
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DEEP QUIET

WITH
B-E-H STYLSTONE®
ACOUSTICAL TILE

Stylstone absorbs sound. It delivers a noise reduction coefficient of .80, cuts clamor to quiet, lowers noise levels to a minimum, makes any interior better to work in, pleasanter to be in. Manufactured from non-combustible mineral wool, Stylstone resists rot and decay. It won't sustain the life of fungus, rodents or insects. It's built for a lifetime of maintenance-free service — and with all this, a new, advanced B-E-H manufacturing process adds looks to Stylstone. Slight variations in the fissure size and design produce the effect of veined marble, perfectly attuned to all interior design. Available with squared or beveled edge, $\frac{3}{4}$ " thick in precision sizes, 12"x12", 12"x23 $\frac{3}{4}$ ", 12"x24".

Write, wire or phone for complete information and the name and address of your nearest B-E-H acoustical contractor... the best man for the best job in your area. Baldwin-Ehret-Hill, Inc., Room 403, 500 Breunig Avenue, Trenton, New Jersey.



BALDWIN-EHRET-HILL, Inc.

Complete line of mineral, wood fibre and metal pan acoustical products for every requirement.

PRESTRESSED



1 Prestressed concrete units are mass produced in the plant to exact specifications—while excavation and foundation work is taking place at the site. Close supervision and control of materials by a specialized work force in the plant produce a high quality product at minimum cost.

2 Plant production is not normally subject to delays due to adverse weather, as often happens to job site operations. Delivery is made as called for by contractors' work schedules.



PRESTRESSED CONCRETE combines two basic materials to give you the best of both

For plant-produced, quality controlled prestressed concrete, consult the PCI Active Member nearest you:

ARIZONA Arizona Sand & Rock Co., Prestress Division, Phoenix • United Materials Inc., Phoenix

CALIFORNIA Basalt Rock Co., Napa • Ben C. Gerwick Inc., San Francisco • Concrete Conduit Company Div. American-Marietta Company, Colton • Delta Prestressed Concrete, Inc., Florin • Rockwin Prestressed Concrete, Santa Fe Springs • San Diego Prestressed Concrete, San Diego • Walles Precast Concrete Corp., Sun Valley

COLORADO Bullen Concrete Products, Pueblo • Prestressed Concrete of Colorado, Denver • Rocky Mountain Prestress, Englewood

CONNECTICUT C. W. Blakeslee & Sons, New Haven

FLORIDA Capitol Prestress Co., Jacksonville • Dura-Stress, Inc., Leesburg • Florida Prestressed Concrete Co., Inc., Tampa • Juno Prestressors, Inc., West Palm Beach • Lewis Manufacturing Co., Inc., Miami • Meekins-Bamman Precast Corp., Hallandale • Prestressed Concrete, Inc., Lakeland • Southern Prestressed Concrete, Pensacola • West Coast Shell Corp., Sarasota • R. H. Wright, Inc., Fort Lauderdale

GEORGIA Augusta Concrete Products Co., Inc., Augusta • American-Marietta Company, College Park • Leap Structural Concrete, Inc., Powder Springs • Macon Prestressed Concrete Co., Macon

HAWAII Concrete Engineering Co., Honolulu

IDAHO Ready-to-Pour Concrete Co., Idaho Falls

ILLINOIS American-Marietta Company, La Grange • Crest Concrete Systems, Lemont • Material Service, Chicago • Midwest Prestressed Concrete Co., Springfield • Precast Building Sections, Chicago

INDIANA American-Marietta Company, Lafayette • Shute Concrete Products, Richmond

IOWA A & M Prestress, Clear Lake • Austin Crabbs Inc., Davenport • Midwest Concrete Industries, West Des Moines • Prestressed Concrete of Iowa, Iowa Falls • C. W. Shirey Co., Waterloo

KANSAS Russell Ralph Co., Topeka • Sunflower Prestress, Inc., Salina • United Prestress Co., Wichita

LOUISIANA Belden Concrete Products, Inc., Metairie • Prestressed Concrete Products Co., Inc., Mandeville • Mid-State Prestressed Concrete, Inc., Alexandria

MASSACHUSETTS New England Concrete Pipe Corp., Newton Upper Falls • Northeast Concrete Products, Inc., Plainville • San-Vel Concrete Corp., Littleton

MICHIGAN American Prestressed Concrete Inc., Centerline • Lamar Pipe and Tile Company, Div. American-Marietta Company, Grand Rapids • Precast Industries, Inc., Kalamazoo • Price Brothers Co., Livonia • Superior Products Co., Detroit

MINNESOTA Cretek Companies, Elk River • Prestressed Concrete Inc., St. Paul • Wells Concrete Products Co., Wells

MISSISSIPPI F-S Prestress, Inc., Hattiesburg • Grenada Concrete Products Co., Grenada • Jackson Ready-Mix Corp., Jackson

MISSOURI Carter-Waters Corp., Kansas City • Missouri Pres-Crete, Inc., Overland

plant
produced

beats
tight
construction
schedules,
helps your
budget

3

In almost all instances, units are erected directly from truck to structure without stockpiling or rehandling at the site. Prestressed members fit readily in place to speed erection and shorten total construction time.

Check all these advantages:

LONG SPANS, SHALLOW DEPTHS...for fewer columns, more usable floor space. High strength produced by prestressing allows the design of well proportioned members of limited depth for given spans.

CUTS CONSTRUCTION TIME--Plant manufacture of prestressed members and site work proceed simultaneously to shorten job schedule.

FINISHED PRODUCT OF PLANT CONTROLLED QUALITY--A wide range of architectural and structural shapes meeting PCI and AASHTO requirements are available at local plants for buildings, bridges and foundations.

FIRE RESISTANT--Tests have proven the high fire-resistant quality of prestressed concrete.

ATTRACTIVE APPEARANCE--FLEXIBLE IN DESIGN--Can take a variety of aesthetically agreeable shapes and bold new designs. Refined prestressed designs result in lighter weight structures.

LOW INSURANCE COST--Durability and fire resistance mean low insurance premiums.

MAINTENANCE-FREE--Requires no painting, little or no water-proofing. Needs no protection from corrosion.

LOW INITIAL COST--Design flexibility, quality plant production and short construction time mean superior structures for less money.

PRESTRESSED CONCRETE INSTITUTE

PRESTRESSED CONCRETE INSTITUTE

P1

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Gentlemen: Please send me your free report "Prestressed Concrete--Applications and Advantages."

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NEW HAMPSHIRE Structural Concrete Corp., Laconia

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NEW MEXICO American-Marietta Company, Albuquerque

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This advertisement sponsored by PCI Active Members

New floor system combines
mechanical and electrical services

GRANCO A-E FLOOR

Design Flexibility • Increased Capacity • Ease of Installation

FOR ANY STRUCTURAL SYSTEM

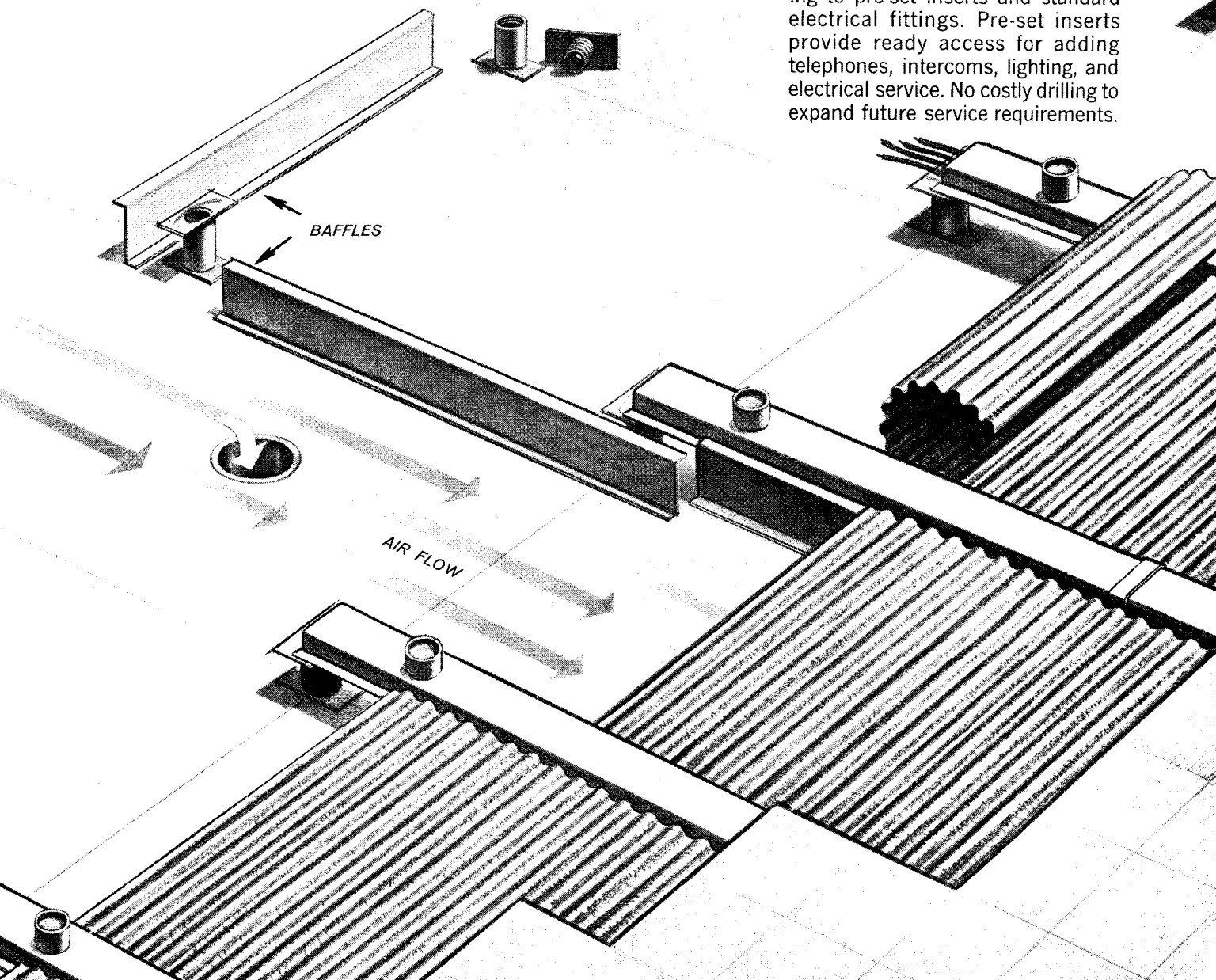
A-E (Air-Electric) floor system fits any type construction—remodeling as well as new. Eliminates most horizontal air ducts. Reduces height between floors. Mechanical and electrical services can easily be expanded to meet future requirements.

OPTIMUM AIR CAPACITY

Adjustable supports permit the height of air space to be varied to meet any capacity requirements. A 3" plenum height will provide all the air normally required for low velocity systems. Adjustment assures level finish floor compensating for dead load deflection and irregularities in structural slab.

ELECTRICAL FLEXIBILITY

Conventional header ducts feed large capacity cells that carry wiring to pre-set inserts and standard electrical fittings. Pre-set inserts provide ready access for adding telephones, intercoms, lighting, and electrical service. No costly drilling to expand future service requirements.





AIR DISTRIBUTION CONTROL

Corrugated galvanized steel serves as form for finish floor slab and forms the top of an unobstructed air plenum. Baffles are used to zone air to desired areas. Perimeter discharge opening can be continuous or spaced as desired.

A-E FLOOR COMPLETE

Sill can be located at any height—important in curtain wall constructions. Speedy placement of air terminals, air grilles, and standard electrical outlets completes your A-E Floor System.

For additional information and details, write for A-E Floor catalog No. AE-601 (A.I.A. File No. 30). GRANCO STEEL PRODUCTS CO., 6506 N. Broadway, St. Louis 15, Mo. A Subsidiary of Granite City Steel Company.

A-E FLOOR

a floor system providing air and electrical distribution

GRANCO



A-E FLOOR • TUF-COR® • CORRUFORM® • COFAR®
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GRANCO VIN-COR® S-I-P BRIDGE FORMS® • PAVEMENT
JOINTS • FREE FLOW SUBDRAIN



2,000 Mo-Sai®

"SANDWICHES" FOR THE SOUTHEAST'S

LARGEST COMMERCIAL OFFICE BUILDING

Mo-Sai precast concrete curtain wall "sandwich" panels (1½ inches of rigid insulation between two 1¾-inch layers of steel reinforced concrete) enclose the approximately one million square feet of office space. Vertical fins cast integrally with each panel create changing patterns of shadows on the white quartz aggregate facade. The curtain wall units are bolted directly to the reinforced concrete frame work on three sides, while similar type panels are anchored to masonry walls on the fourth side. Interlocking edges on the 5'3" by 11'3" panels provide for easy alignment, and weatherproof joints.

MO-SAI INSTITUTE, INC.

*Headquarters, P. O. Box 45, Station A
New Haven, Connecticut*

BADGER CONCRETE CO.

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BEER PRECAST CONCRETE, LTD.

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ATLANTA MERCHANDISE MART, Atlanta, Georgia

Architect: Edwards and Portman, AIA, Atlanta, Ga.
General Contractor: Ben Massell Enterprises, Atlanta, Ga.

■ Weldwood movable walls DESIGN 104 is a new concept based on aluminum shapes, which gives architects and designers custom-design freedom throughout an installation—at minimal additional cost.

a major advance in movable wall systems

- Completely modular, including glazing details
- Walls 1¾" through posts—save space
- Universal post
- Free choice of face and core materials
- Panel components to fit all budget and code requirements
- Electrical switches and receptacles (110-volt) available in post and base sections
- Vinyl-covered-steel base and head sections
- All panels may be used in any other Weldwood system by simple substitution of parts

Design 104 is a *total* solution to space division problems. It embraces all areas from prestige offices down to the lowliest stockrooms. Panel components are available to meet all budget requirements—from \$18 per linear foot up. Free choice of face materials makes it possible to integrate decorative treatment for maximum visual impact throughout an installation. The single modular system simplifies installation and later changes — one erection technique throughout — and minimizes panel stocks the building manager must carry. Because Design 104 is based on aluminum shapes, with relatively low tooling costs, deviation in design to create a custom building standard is possible with little increase in cost.

For more details, send for "Weldwood® Movable Walls," #2241—*no representative will call except at your request*. If, however, you want full details and help in planning and estimating, a Weldwood Architects' Service Representative will gladly work with you. For literature—or additional help write: United States Plywood, Dept. PA 1-62, 55 West 44th Street, New York 36, N. Y.

WELDWOOD MOVABLE WALLS DESIGN 104

Products of United States Plywood

Exciting design ideas with POZZOLITH concrete . . .

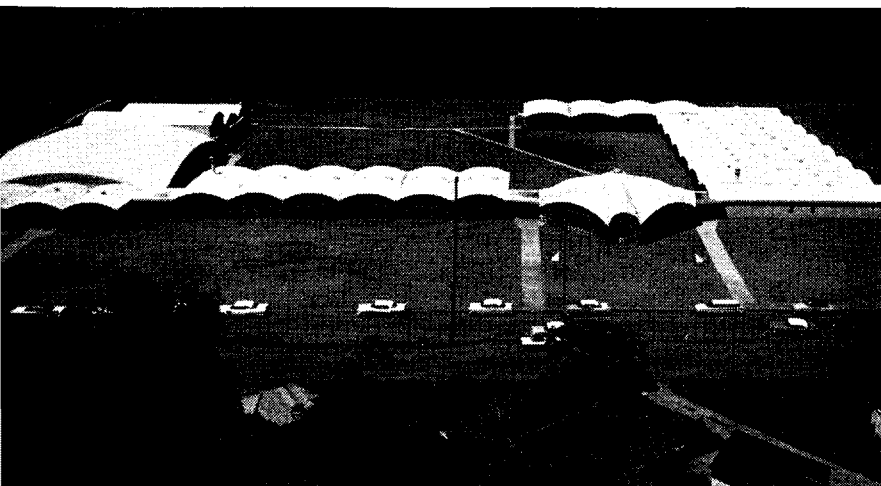
Pauls Valley High School teaches a lesson in thin shell concrete

From plants such as this new high school at Pauls Valley, Oklahoma—school planners and architects are learning about a dramatic new concrete design concept for shaping and molding the classrooms of tomorrow. For here—with the highly successful use of thin shell concrete—the architect has demonstrated both the practical and aesthetic values of a bold departure from traditional forms of school construction.

Use of thin shell concrete for spanning areas in this \$500,000 project varies from simple barrel shells for classrooms to more complex paraboloids for the auditorium and administration areas.

POZZOLITH was the concrete admixture used to produce specified strength most economically and enable the contractor to control setting time to the varying weather conditions. With POZZOLITH, the concrete was produced at lowest cost-in-place . . . finished easily . . . and contributed to the low over-all project cost of just \$9.40 per square foot.

This is *architectural concrete* . . . a bold, expressive and practical medium for today's creative architect. And POZZOLITH adds to the versatility, beauty and utility of concrete . . . makes it a more durable building material—superior in performance and economy to plain concrete or concrete produced with any other admixture. Contact the local Master Builders field man for a demonstration of POZZOLITH's unique benefits for your present or future concrete projects—and see our new general catalog in Sweet's, Section 9.



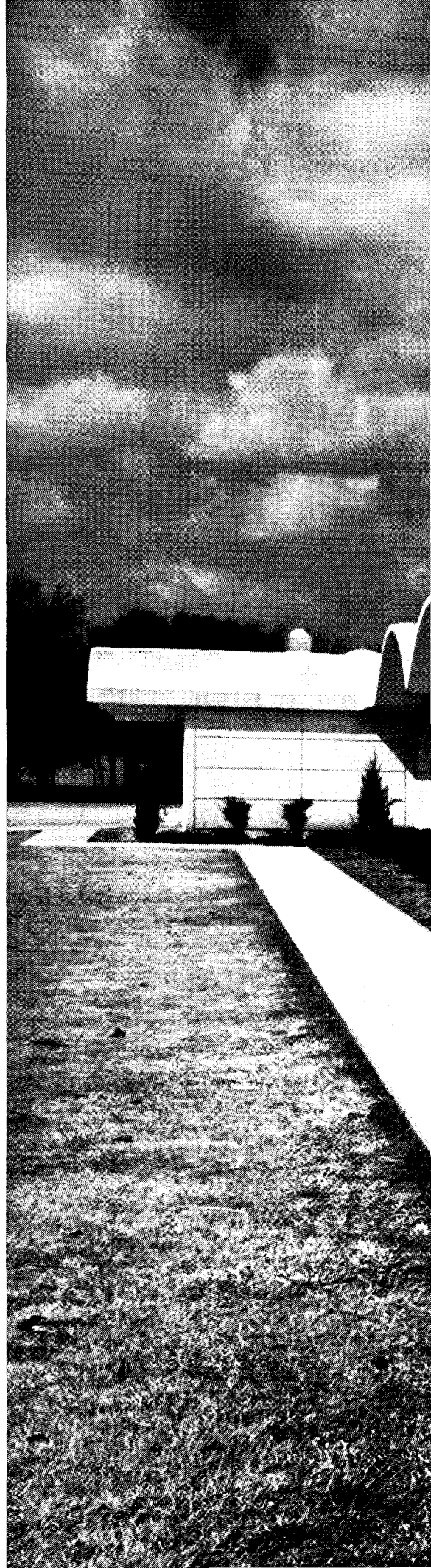
PAULS VALLEY HIGH SCHOOL, Pauls Valley, Oklahoma. Thin shell 53,000 sq. ft. complex includes 87' x 112' elliptical paraboloid auditorium (left), barrel shell classrooms and scalloped-dome administration building. Owners: Pauls Valley Board of Education • Architects and Engineers: Jack L. Scott and Associates, Oklahoma City, Oklahoma • General Contractor: E. P. Hudgens Construction Company, McAlester, Oklahoma.

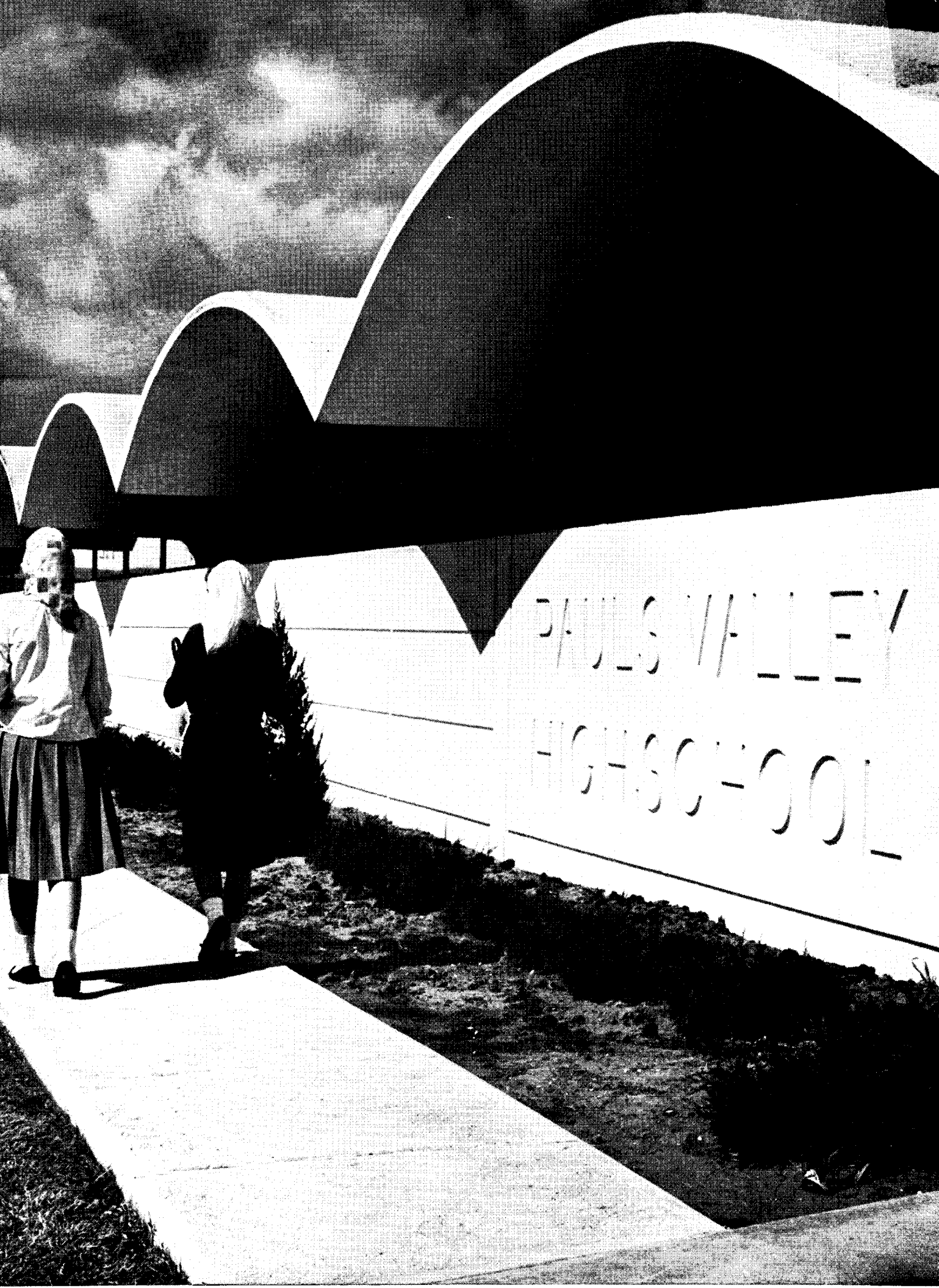
*The Master Builders Company • Cleveland 18, Ohio
Division of Martin-Marietta Corporation
World-wide manufacturing and service facilities*

MASTER BUILDERS. POZZOLITH*

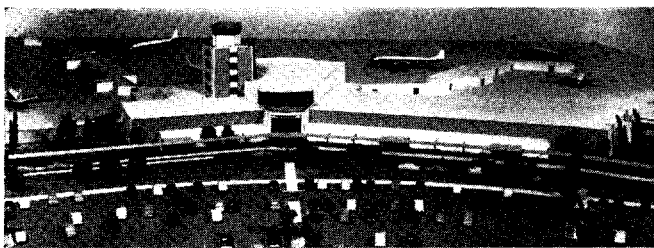
*POZZOLITH is a registered trademark of The Master Builders Co. for its ingredient for concrete which provides maximum water reduction, controls rate of hardening and increases durability.

For more information, turn to Reader Service card, circle No. 344





TELKEE FOR KEY CONTROL



Salt Lake City Air Terminal
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Pittsburgh Hilton, Pittsburgh
William B. Tabler, Architect, New York
Turner Construction Co., Gen. Contractor, Philadelphia
Hardware Engineers & Contractors, Builders' Hardware Contractor, Greensburg, Pa.

Qualitatively, the locksets specified for your projects may be of the highest order. *Functionally*, they are worthless without the keys that operate them. That's why Architectural Hardware Consultants recommend TELKEE Key Control on these and thousands of other projects of every type and size.

Don't close any job until you weigh the benefits of TELKEE Key Control against its small cost. Security during construction; simple, orderly turn-over at completion; convenient lock utility and protection for the life of the building . . . you specify these *tangible benefits* when your builders' hardware specifications include TELKEE Key Control. Specify TELKEE by name—there is no equal in quality or function.

See TELKEE Catalog 18e/Moo in Sweet's Architectural File, or write for 54 page TELKEE AIA Manual.



P.O. MOORE, INC.

GLEN RIDDLE 1, PENNSYLVANIA

For more information, turn to Reader Service card, circle No. 346

IN DESIGNING ONE-STORY BUILDINGS

**Provide for expansion
without oversize
heating/cooling
equipment**

The multiple units of Atmos-Pak heating and/or cooling system facilitate expansion by merely adding new units. They obviate total breakdown, permit economy of operation, create flexible control.

Atmos-Pak is a roof-mounted, low-silhouette, pre-fabricated heating and/or cooling system specifically engineered for large one-story buildings. It has innumerable advantages for shopping centers, supermarkets, discount houses, bowling alleys, schools, post offices, churches, and industrial buildings. The only interior fitting is an inconspicuous, although good-looking, diffuser, integral with the unit. The one-piece apparatus can be delivered and in operation the same day. Optional colors and housing designs.

Dispensing with boiler and apparatus rooms, Atmos-Pak saves space. Pre-fabrications reduces on-site installation to three quick connections. The supply and return air distribution chambers do away with ductwork. Air-cooling makes water-towers, evaporative condensers, miles of pipe, and other appurtenances unnecessary.

The 50 standard Atmos-Pak models range in individual cooling capacity from 5 to 35 tons. As many units as are needed to add up to the total requirements, are installed. Heating capacity provided as required.

Specify Atmos-Pak for the assurance of problem-free comfort. Write for additional information.

ATMOS-PAK, INC., 88 North Highland Avenue, Ossining, N. Y. Pioneer, Designer, and Manufacturer of Roof-Mounted Heating and/or Cooling Systems.

*There's always room on top for
the original low silhouette*

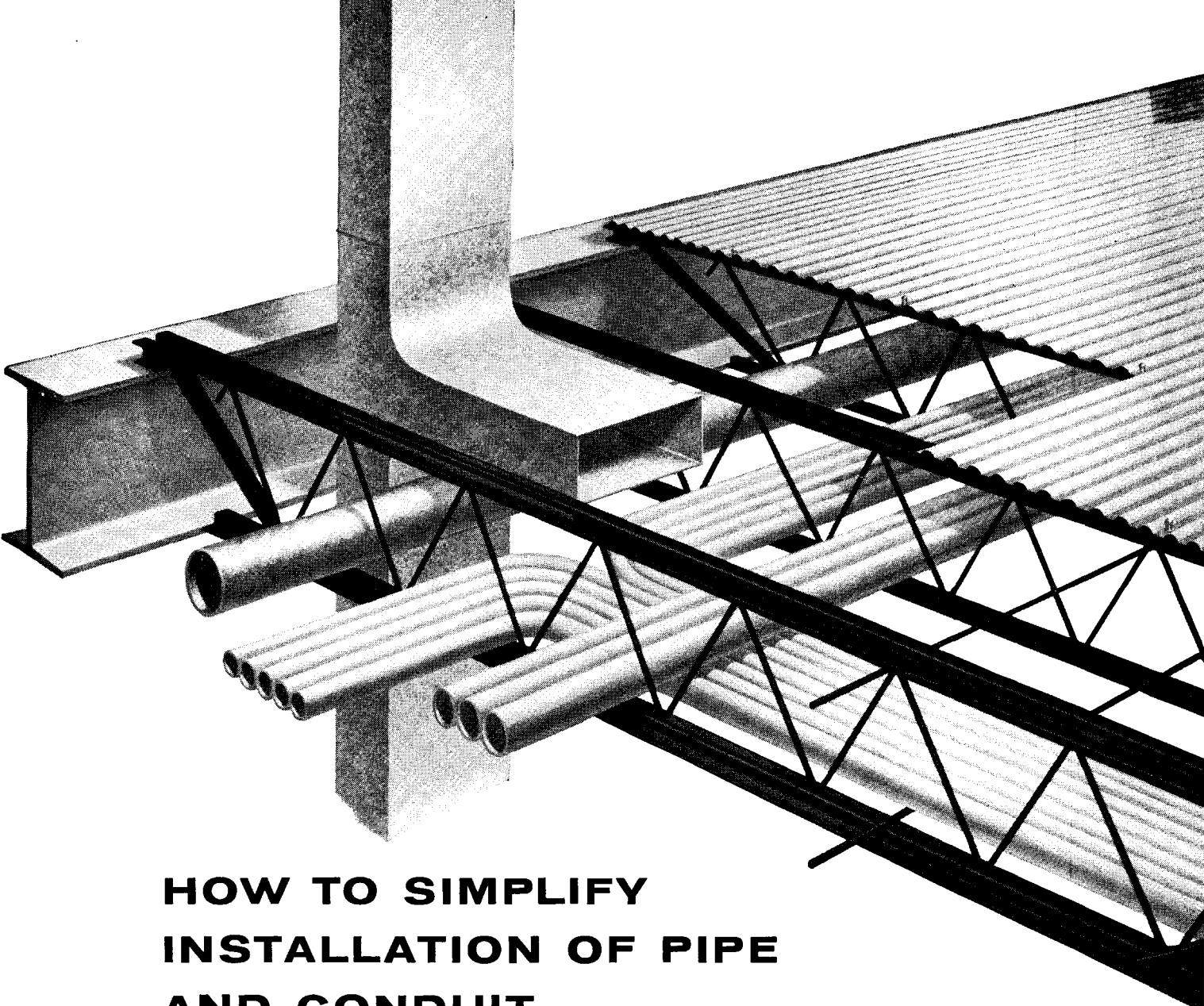


Patent No. 2886955

ATMOS-PAK, Inc.
88 North Highland Avenue
Ossining, N. Y.

*Pioneer, Designer, and Manufacturer of
Roof-Mounted Heating and/or Cooling Systems*
For more information, turn to Reader Service card, circle No. 407

JANUARY 1962 P/A



HOW TO SIMPLIFY INSTALLATION OF PIPE AND CONDUIT

One of the many advantages of designing with Bethlehem open-web steel joists is the ease with which you can install pipe and conduit. As shown above, the open-webs make it so simple to pass through pipe, wires, heating lines—in *any direction*. And installation of recessed lighting fixtures, plus their wiring, is also simplified.

Steel joists are incombustible, and they can't warp or sag. Termites can't eat them. Bethlehem joists are completely fabricated in the shop, reach the job site ready for immediate placing.

Full details on steel joists, and Slabform, Bethlehem's solid steel centering that can save you money and material, are available at any Bethlehem sales office. We'll be glad to talk over your building plans with you.



for Strength
... Economy
... Versatility

BETHLEHEM STEEL COMPANY, BETHLEHEM, PA.
Export Sales: Bethlehem Steel Export Corporation

BETHLEHEM STEEL





An indoor-outdoor pool reflects some of wood's many applications in the Motel on the Mountain in Suffern, N. Y. Plank-and-beam walkways, sturdy railing, solid supports bare to every guest the inner charm of this extraordinary wood hostelry. Motel restaurant designed by architect Junzo Yoshimura.

For structures that mean business, anywhere

find the better way with WOOD



The oriental-styled balconies surrounding the Motel's restaurant attest beautifully to wood's self-supporting capabilities. The geometric pattern, virtually all of wood, is as breathtaking as the view.

Sitting pretty on a rugged mountaintop, a modern motel illustrates throughout how any commercial structure you plan with wood can create a better place for business. In every design, wood's friendly exteriors and warm interiors promote immediate acceptance. Its wonderful workability—in beams, siding, paneling, or flooring—lets you achieve greater economy . . . but never at the expense of quality.

Wood's inherent insulating characteristics keep seasonal temperature changes outside where they belong. Its acoustical advantages keep sounds within proper bounds. Compatibility with other materials, rich grains and tones, the ability to age gracefully . . . all give wood an incomparable natural beauty, offer you a medium adaptable to any site for any purpose. For more data on designing with wood, write:

NATIONAL LUMBER MANUFACTURERS ASSOCIATION

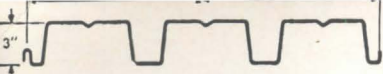
Wood Information Center, 1619 Massachusetts Ave., N.W., Washington 6, D. C.

nlma

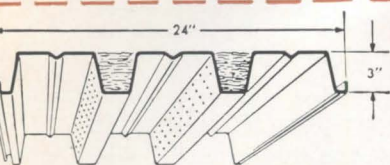
for freedom of design, look to **wood**



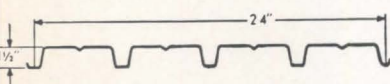
The rugged strength of exposed framing, the durability of planked roofing and board-and-batten siding are used to advantage in this complex of wood structures. Architects: Harwell Hamilton Harris, Perkins and Will.



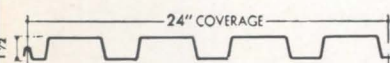
NEW! N-DECK—Available in lengths from 6'0" to 28'6". Carries normal roof loads over spans up to 16'0". Especially practical for canopies.



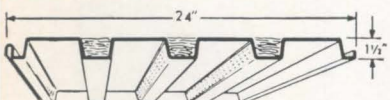
NEW! N-ACOUSTIDECK—Steel deck and acoustical ceiling in one panel. For spans to 16'0". Noise-Reduction Coefficient, .70.



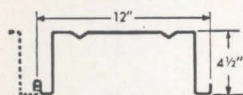
A-DECK — For purlin spacings not exceeding 8'4". Narrow ribs provide deck surface that supports the thinnest or softest types of insulation.



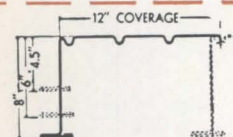
B-DECK — For spans to 10'0". Wide rib distributes metal for greater structural efficiency. Well suited for use as side wall panels.



B-ACOUSTIDECK — Two-in-one panel combines steel roof deck with acoustical ceiling having Noise-Reduction Coefficient of .70. Used for spans to 10'0".



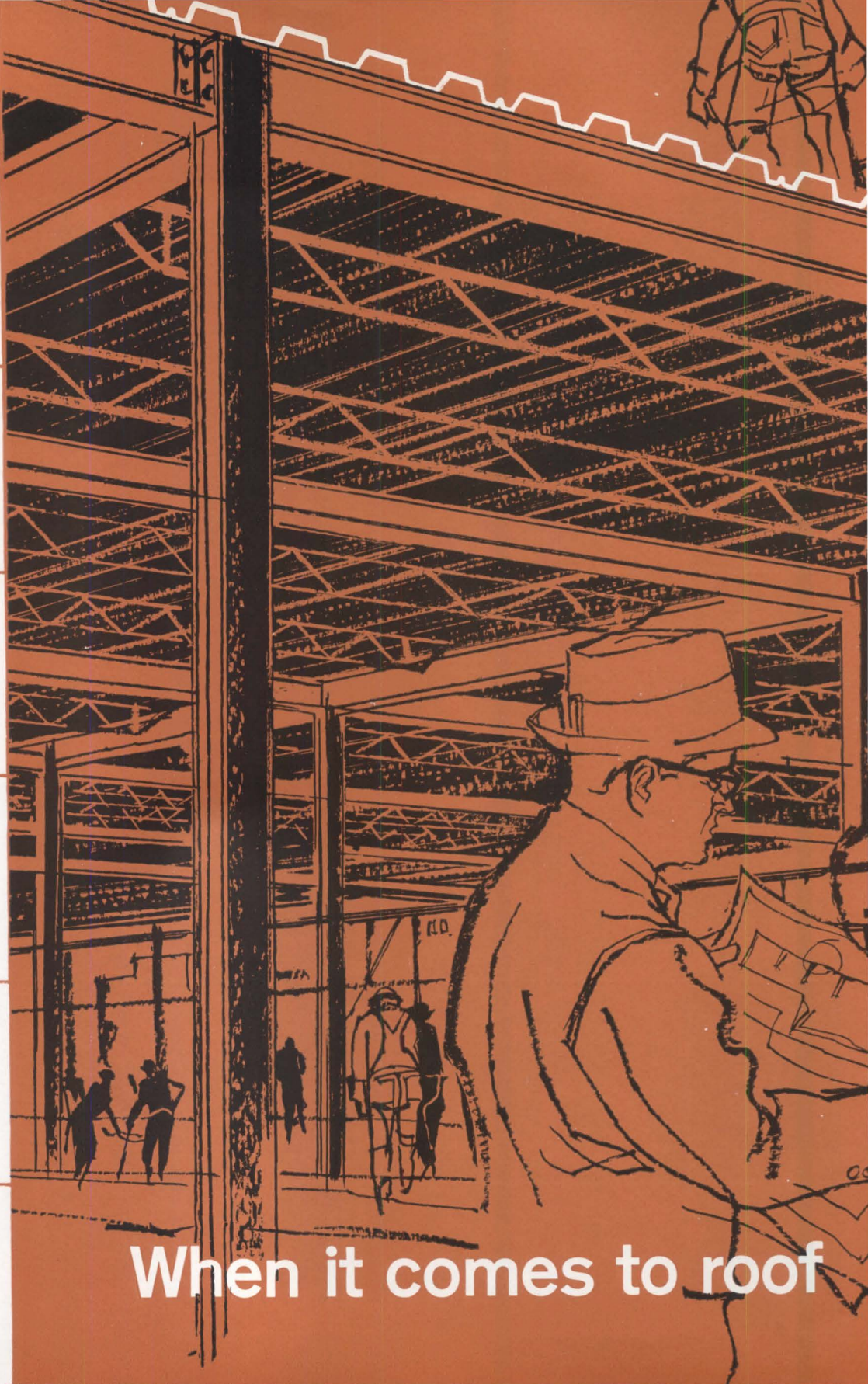
H-DECK — New! For simple spans to 20'0" — 3" and 4 1/2" depths. Especially practical to cover walkways in shopping centers, schools, other installations. Also available in Acoustideck.



T-STEEL — New! Galvanized only. For clear spans to 32'0". Adaptable to acoustical and flush, luminous ceiling treatments. Provides superior diaphragm to resist seismic and wind loads.



RIBFORM — High-tensile, galvanized steel form for concrete slabs over spans up to 8'0". Three types: Standard, Heavy-Duty, Super-Duty (shown).

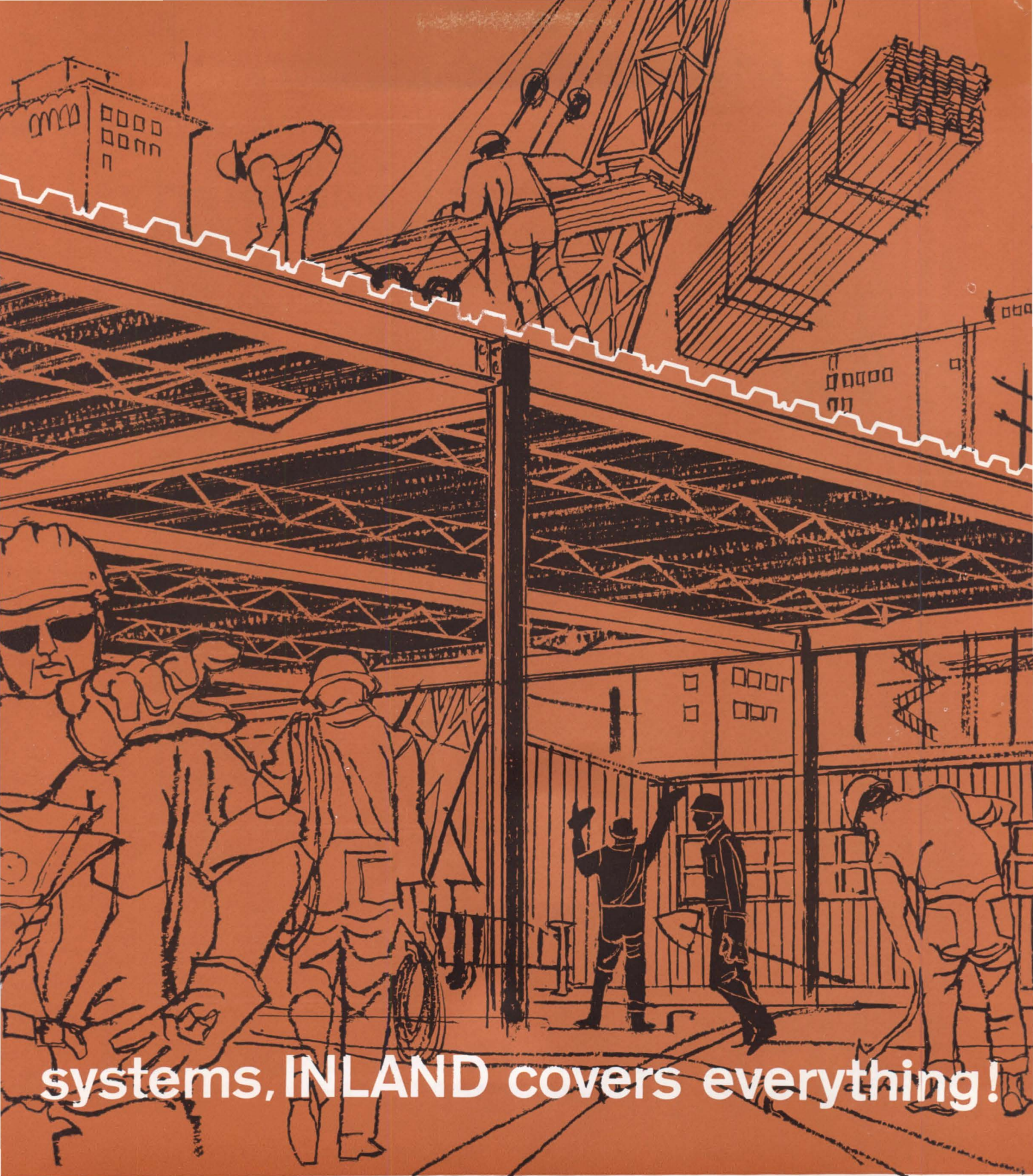


When it comes to roof

Whether your design calls for a dry insulation board roof or for wet-fill, there's an Inland roof system for the job — by the makers of Inland steel building products, famous for highest quality.

Inland steel deck is lightweight—weighs less than half as much as poured-in-place or pre-cast construction. You can space joists wider than otherwise and use lighter framework, to save both time and money.

Panels are easy to handle and weld in place — in any weather that a man can work. They don't need warmth for setting, nor time for curing. They don't



systems, INLAND covers everything!

absorb water, nor lose their strength when wet — the job stays on schedule.

Types A, B, H, and N decks have the additional advantage of a Bonderized, baked-enamel prime finish that resists on-the-job damage. One field coat of paint on these Inland decks usually does the job of two coats on ordinary decks.

Write for catalog 248 — or see Sweet's sections 2i/InL, for full information on Inland steel roof deck and permanent centering. If you have an unusual problem, you can draw upon their diversified experience by consulting Inland's Engineers.

member of the

INLAND

steel family

ENGINEERED PRODUCTS DIVISION

**INLAND STEEL
PRODUCTS COMPANY**

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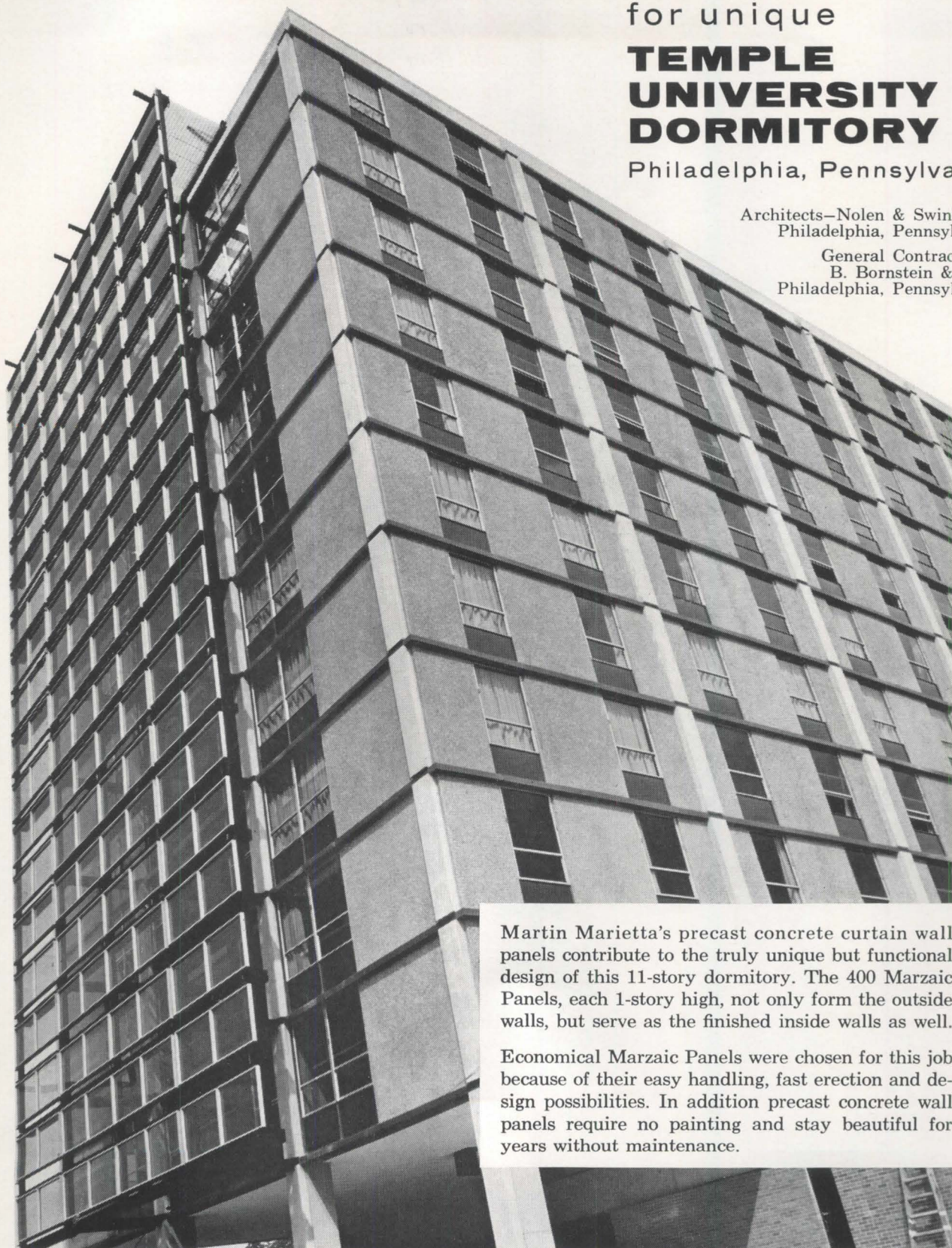
for unique

TEMPLE UNIVERSITY DORMITORY

Philadelphia, Pennsylvania

Architects—Nolen & Swinburne
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Martin Marietta's precast concrete curtain wall panels contribute to the truly unique but functional design of this 11-story dormitory. The 400 Marzaic Panels, each 1-story high, not only form the outside walls, but serve as the finished inside walls as well.

Economical Marzaic Panels were chosen for this job because of their easy handling, fast erection and design possibilities. In addition precast concrete wall panels require no painting and stay beautiful for years without maintenance.

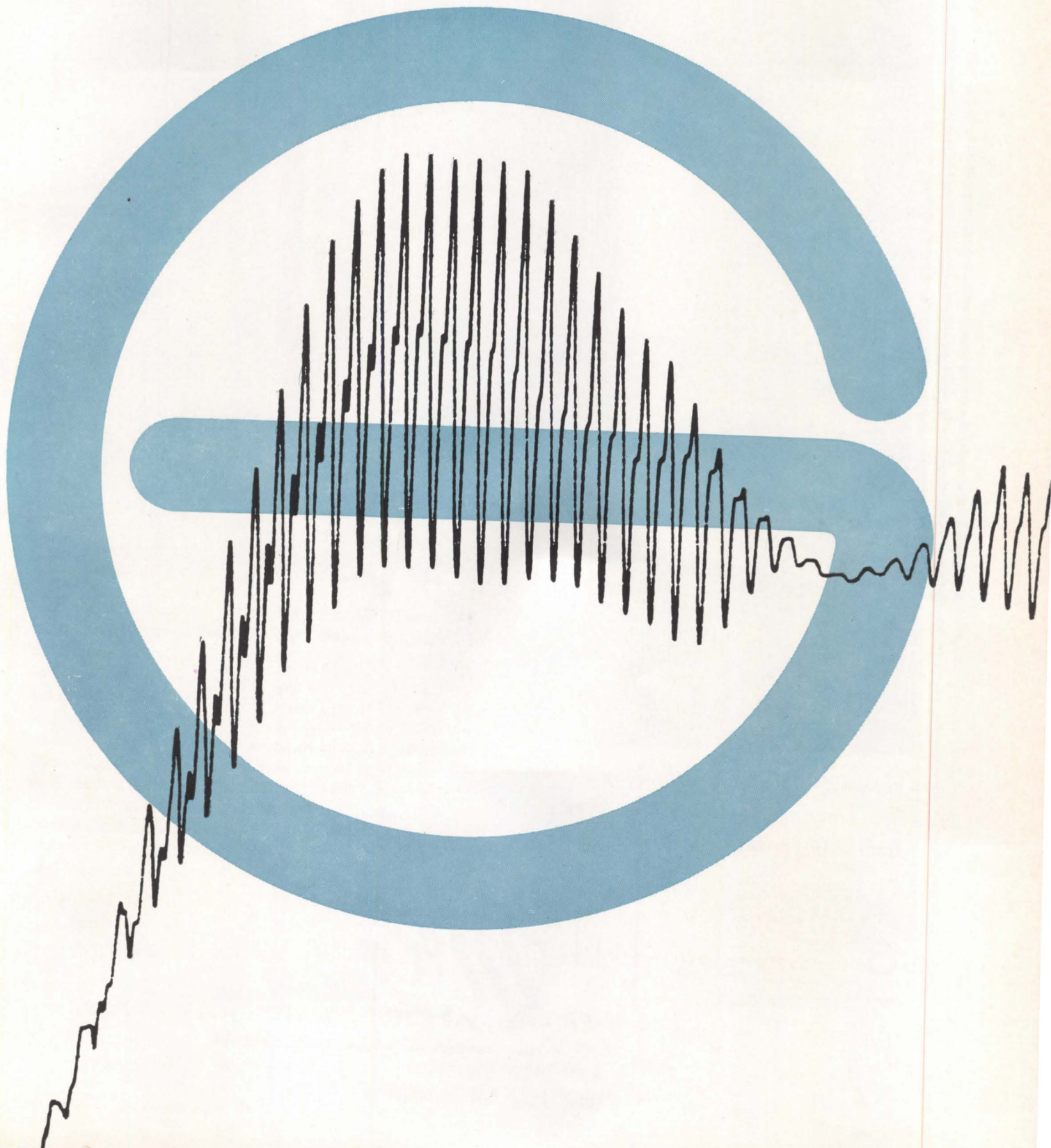
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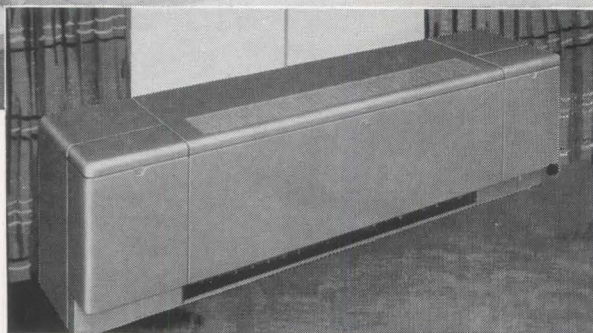
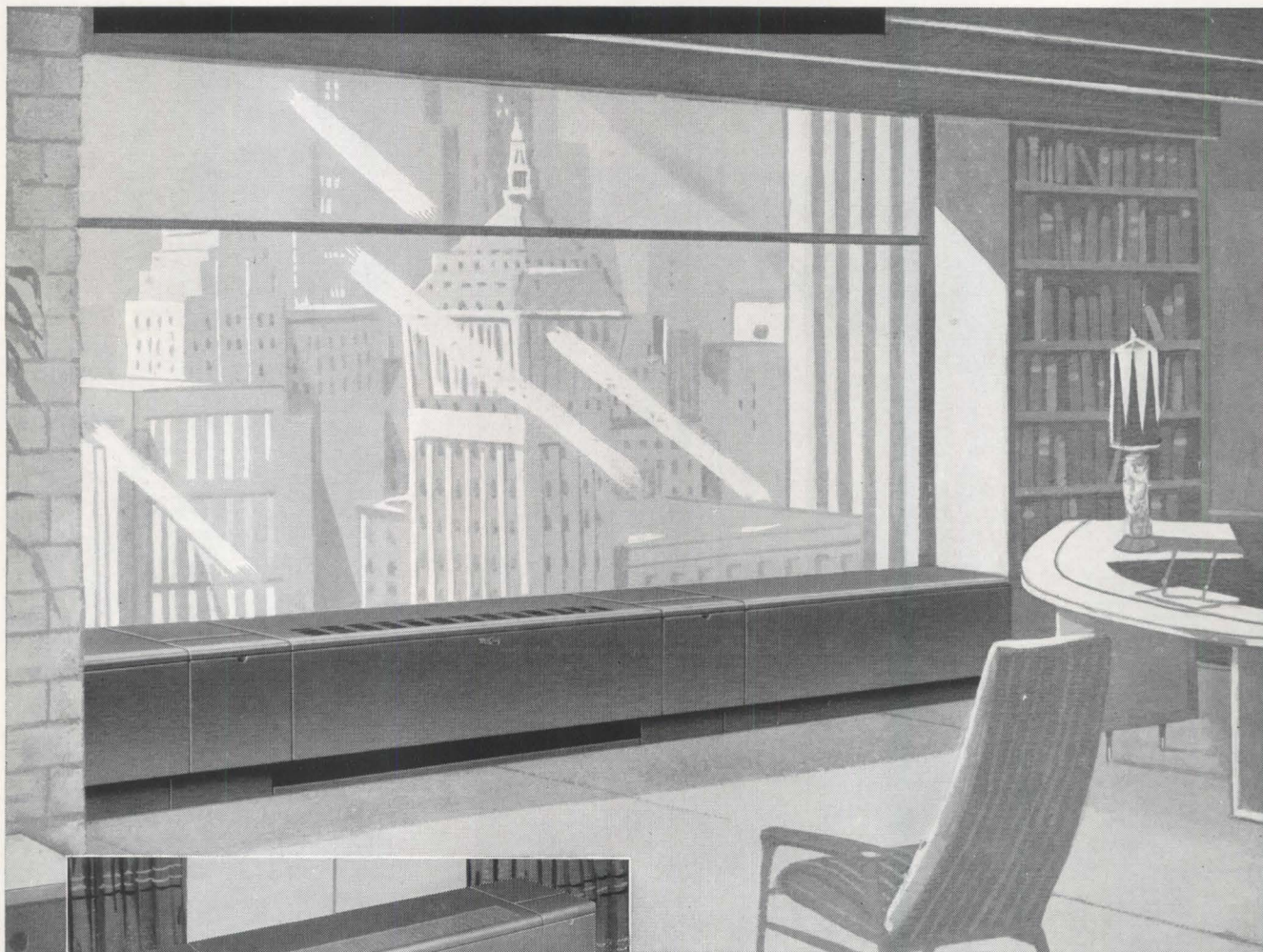
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Soft Seating designed by George Nelson & Co.
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The comfortable approach to modern seating

An aerial photograph of the Chicago skyline, featuring prominent skyscrapers like the Willis Tower and the Sears Tower. The city is densely packed with buildings, and the surrounding area shows some industrial and commercial structures. The sky is overcast with clouds.

7½ TONS OF REVERE SHEET COPPER

**USED FOR GRAVEL STOPS, GUTTERS AND
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Minutes away from everything in downtown Dallas, the new Marriott Motor Hotel offers every possible convenience to guests in its 300 rooms and suites. Its modern facilities and appointments and exterior design make it an outstanding building of its type and one of the finest motor hotels anywhere.

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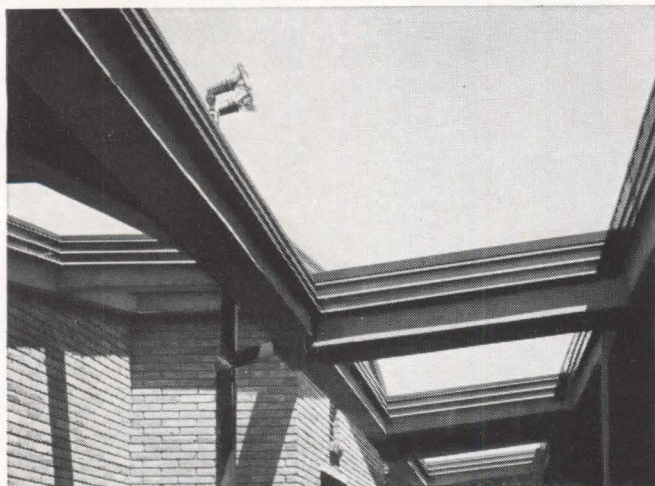
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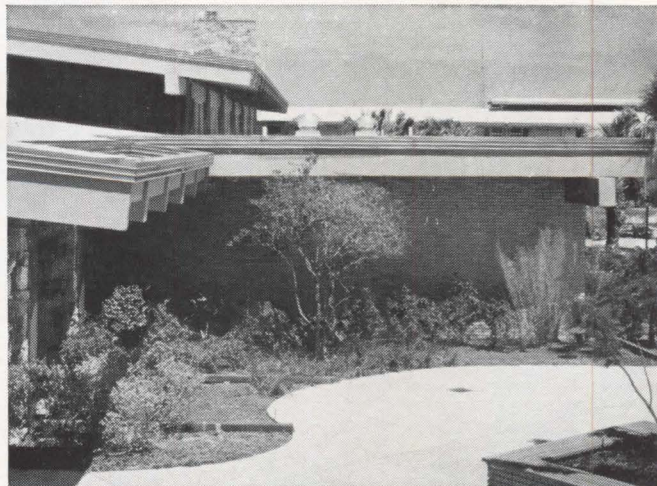
Mills: Rome, N.Y.; Baltimore, Md.; Chicago and Clinton, Ill.; Detroit, Mich.; Los Angeles, Riverside and Santa Ana, Calif.; New Bedford and Plymouth, Mass.; Brooklyn, N.Y.; Newport, Ark.; Ft. Calboun, Neb. Sales Offices in Principal Cities.

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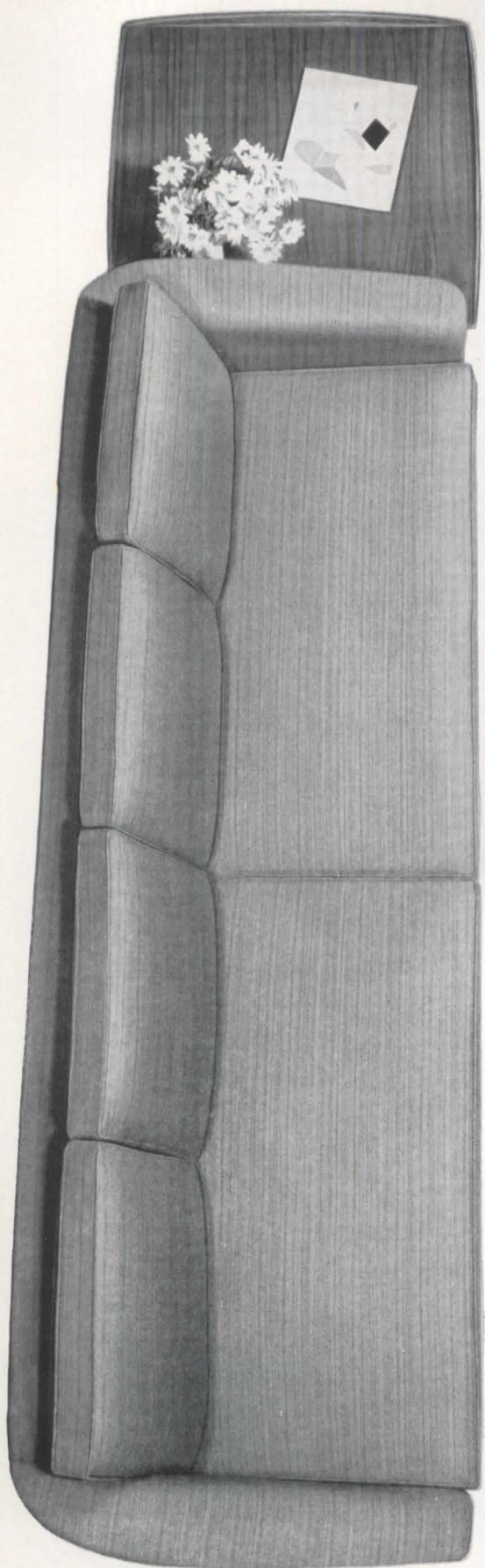
Architect: HAROLD A. BERRY, DALLAS; *General Contractor:* TEN EYCK-SHAW, INC. DALLAS;
Sheet Metal Contractor: SOUTHWESTERN SHEET METAL & MANUFACTURING CORPORATION, DALLAS;
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Close-up of Revere Copper used in fascias of decorative opening in roof over-hang. Revere Copper was also used for the vent louvers in the Cupola. A total of 15,000 lbs. of Revere 16-oz. cold-rolled copper were used.



Roof view, showing gravel stops and fascias made of Revere sheet copper. Above are two details of a suggested method of installing gravel stops and gutter-gravel stop combinations similar to those used on the Marriott Motor Hotel.



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An unsurpassably smooth combination of comfort, beauty and strength, contemporary furniture designed for DUX by Folke Ohlsson is equally at home in commercial as well as residential interiors.

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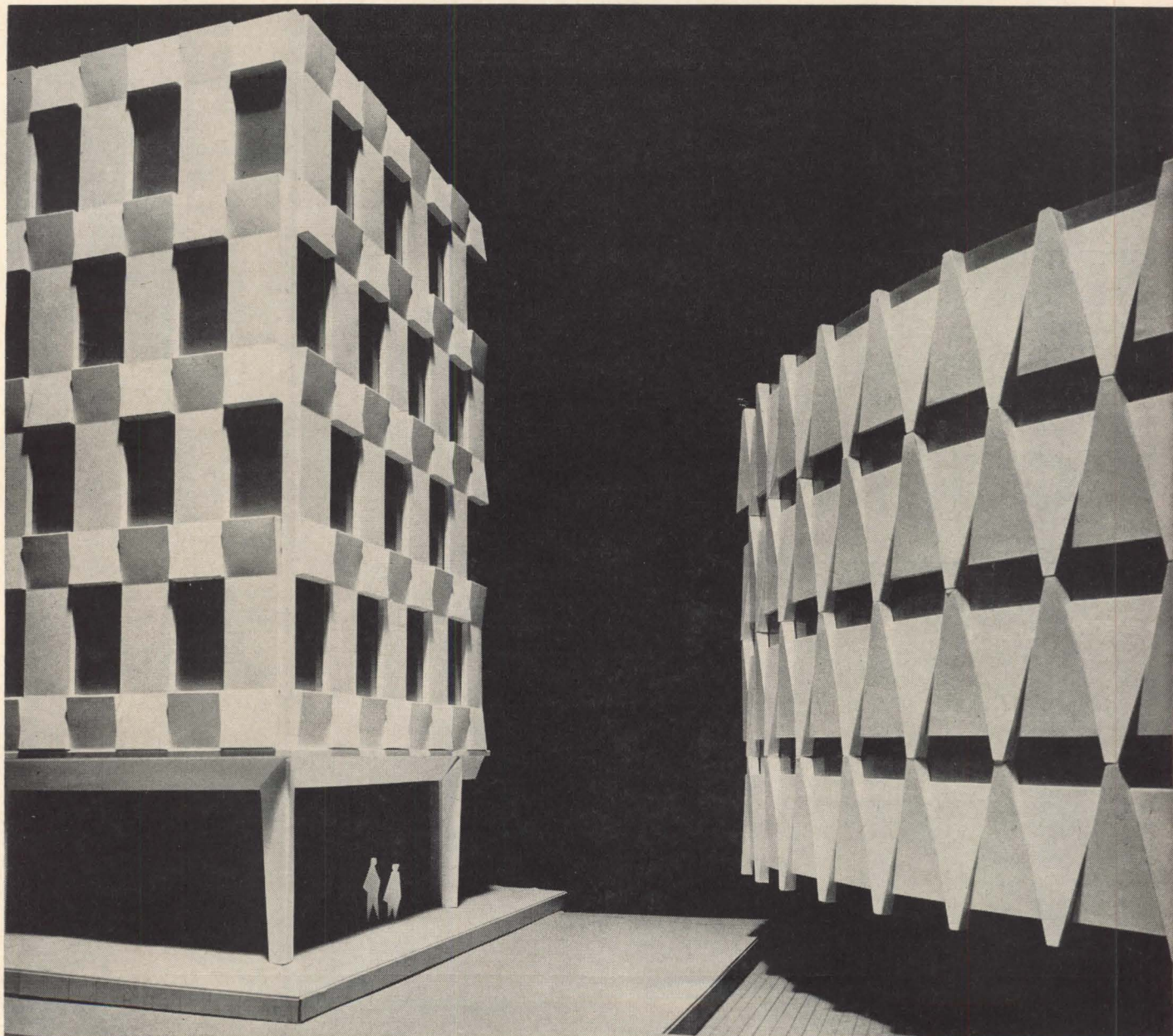
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PROGRESSIVE ARCHITECTURE JANUARY 1962

NEWS REPORT

Architecture's Monthly News Digest of Buildings and Projects, Personalities, New Products



Multifaceted façades of buildings for New Jersey State Health and Agriculture Department are part of Trenton development.

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- 89 MANUFACTURERS' DATA

HOW NOT TO SELECT A HARDWOOD FLOORING CONTRACTOR!

Of course you don't flip a coin to select a hardwood flooring contractor. But many *are* chosen simply on a "low" bid basis, without consideration of all factors involved.

Client approval and your professional reputation depend upon expert workmanship as well as quality flooring. To protect and benefit your client and yourself, you naturally want to do all you can to be *sure* you have a competent flooring contractor.

You *can* be sure, if:

- You include in your specifications a wood flooring section. Do not list wood flooring in carpentry or millwork.
- You designate a quality wood floor system requiring installation by an experienced, fully qualified flooring contractor.
- You establish his responsibility for the complete installation from subfloor to finished floor.
- You insist that "low bids" on alternate flooring systems be listed according to:

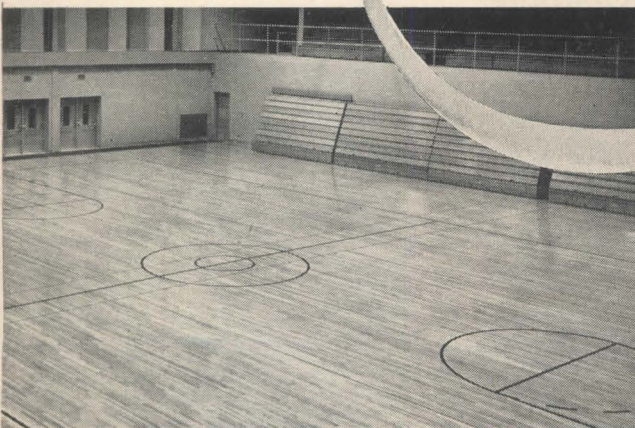
Sub-contractor

Proposed alternate system

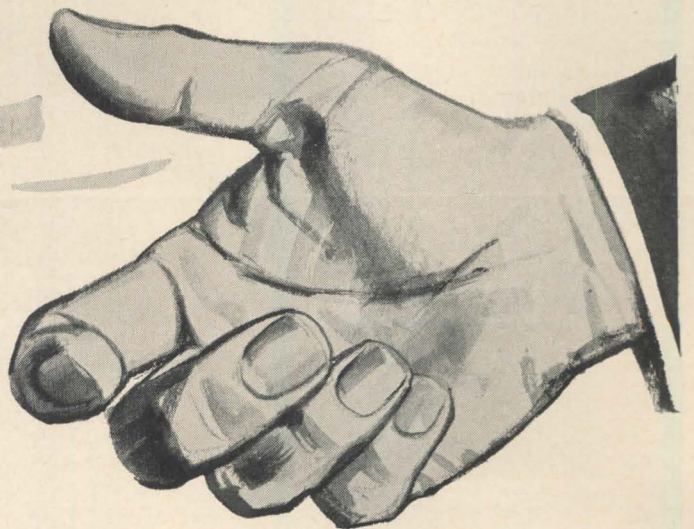
Manufacturer co-signing performance guarantee

When you specify Robbins' hardwood flooring systems you call for both quality materials and expert installation. Contractors who install Robbins flooring are selected for their experience, high standards and business competence. They make possible the Robbins guarantee, countersigned by the hardwood flooring contractor with whom you deal personally.

Find out more about your nearest Robbins franchised installer. For his name, write Robbins Flooring Company, Reed City, Michigan. Attn: Dept. PA-162.

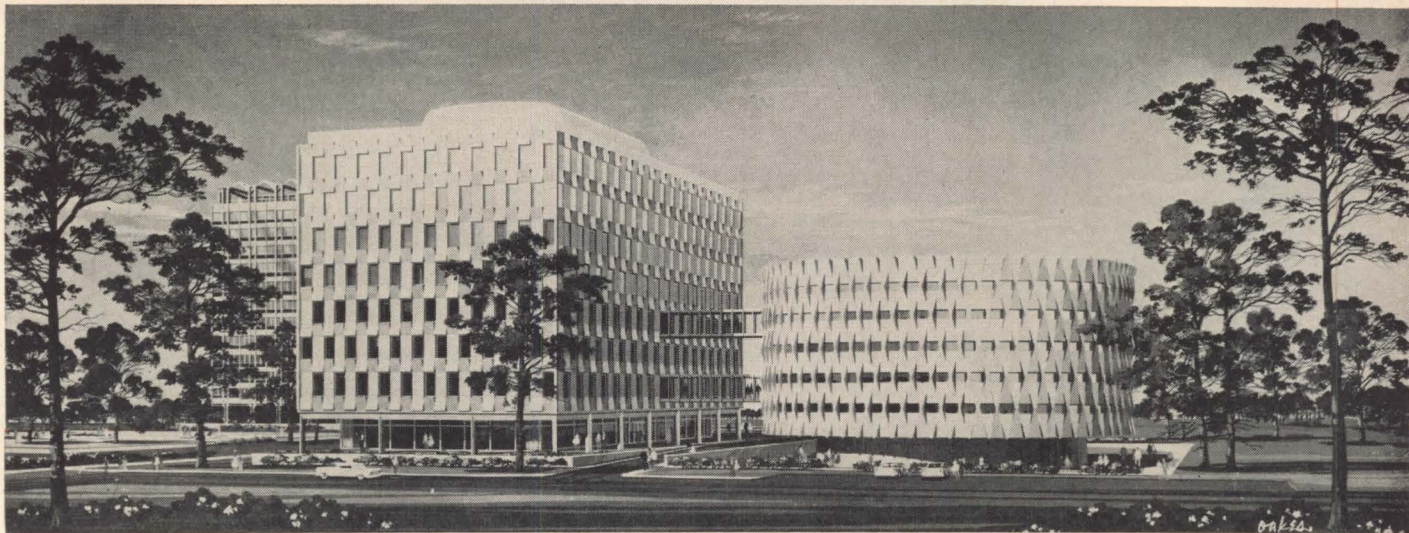


This "Air Thrust" Pneumatic Hard Maple Floor System was installed by Chas. H. Anderson Floors, Inc., Chicago, Ill., in the Prospect Heights Field House, Arlington, Ill. It is an example of a fine hardwood floor system . . . well made . . . well laid.



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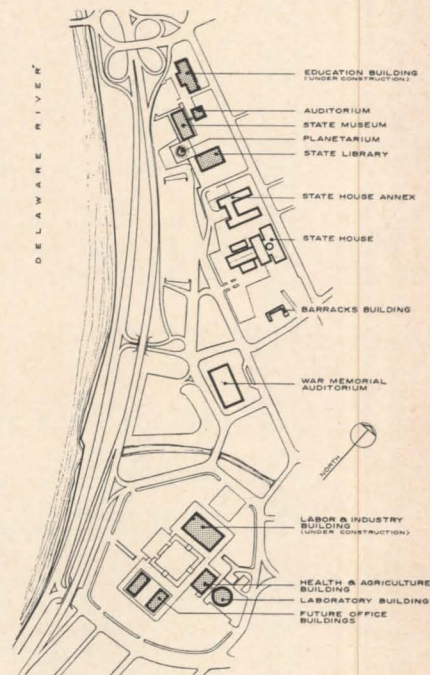
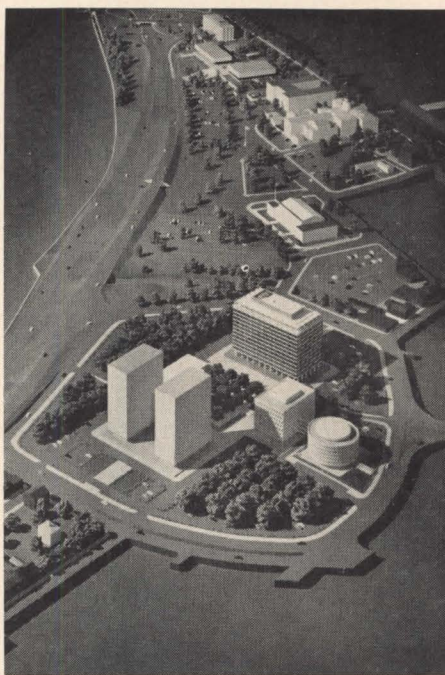
MULTIFACETED CONCRETE FOR NEW JERSEY CAPITAL REDEVELOPING

TRENTON, N.J. Part of the over-all redevelopment plan for New Jersey's governmental administrative buildings (*site plan and model photo, right*) is the John Fitch Way Redevelopment Area, containing the Department of Labor and Industry Building by Frank Grad & Sons, and the State Health and Agriculture Building and Laboratory by Alfred Clauss (*above and p. 57*).

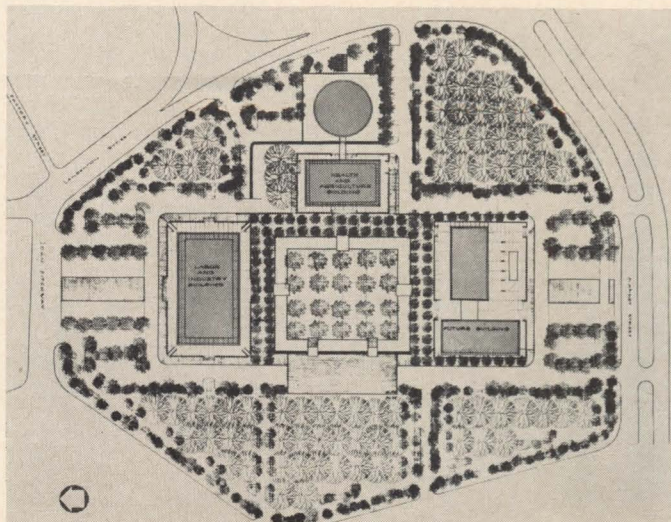
The health-agriculture complex consists of an eight-story, rectangular office building and a five-story, circular laboratory building. These will be connected by enclosed bridges at the second and fourth floors. Structure of both buildings will be concrete enclosed with precast concrete panels with an exposed aggregate finish. Panels on the laboratory will be mainly triangular, outlining the window units. Panels for the office building will be rectangular, angled out slightly. Ground floor of the office building will contain a board room, library, lunchroom, and training rooms; remaining floors will feature flexible space. Clauss's plans indicate that the laboratory will have both fixed and flexible space. Exterior glazing, which will be kept to a minimum, will be heat-resistant gray glass.

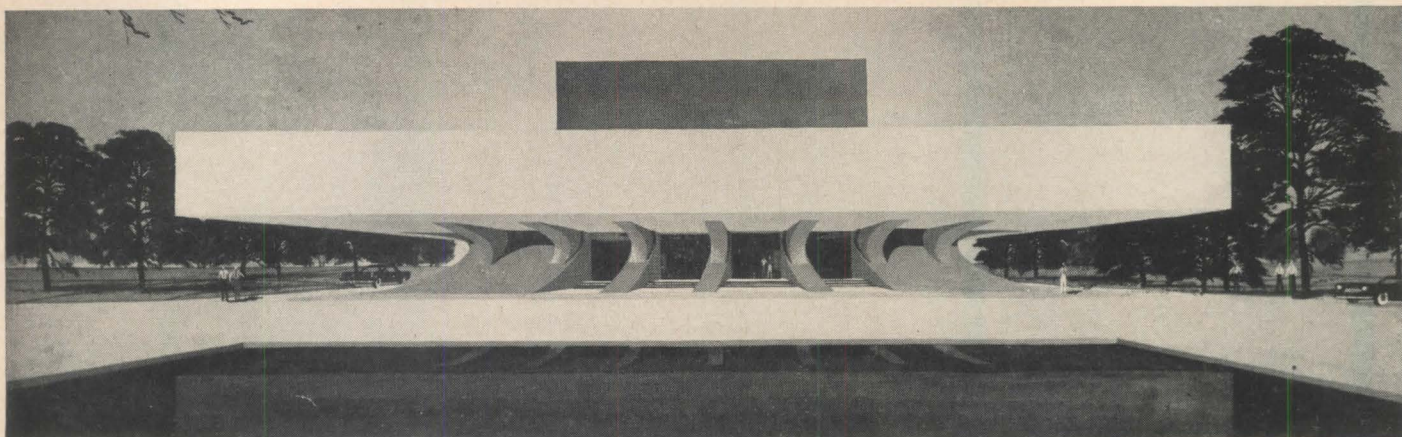
Besides the Labor and Industry Building and the Health and Agriculture scheme, current projects for Trenton include a Department of Education building by Kramer, Hirsch & Carchidi, and a State Library and Museum by Frank Grad & Sons. Funds for an auditorium and a planetarium are being collected, and two more governmental office buildings are projected for the John Fitch Way site.

Over-all redevelopment plan was developed by the Grad firm, with Alfred Clauss collaborating on the John Fitch Way plan.



Over-all site plan (above) and John Fitch Way plan (below).





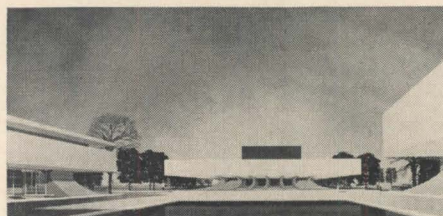
Philippine-American Cultural Center Proposed

MANILA, PHILIPPINES Funds are now being collected for the erection of Philippine-American Cultural Foundation in Quezon City, a part of Greater Manila. The center was designed by Leandro V. Locsin & Associates, whose young chief (33 years old) is further discussed on page 64.

The foundation is dedicated to enriching and preserving Philippine culture, and to strengthening the ties of friendship and communication between the Philippines and the United States.

It is a private, nonpolitical, nonprofit, nonsectarian organization.

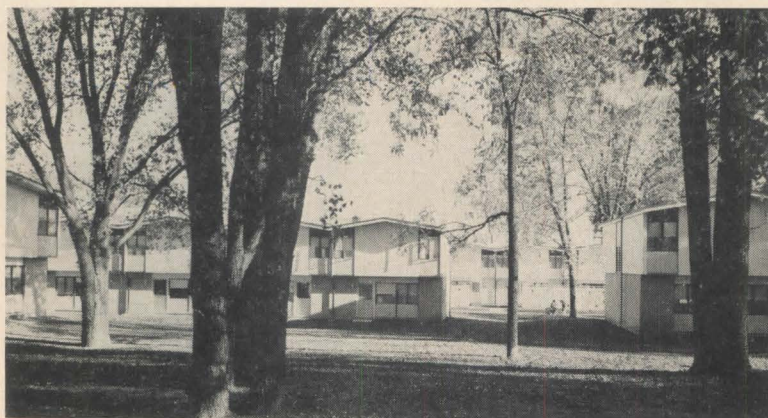
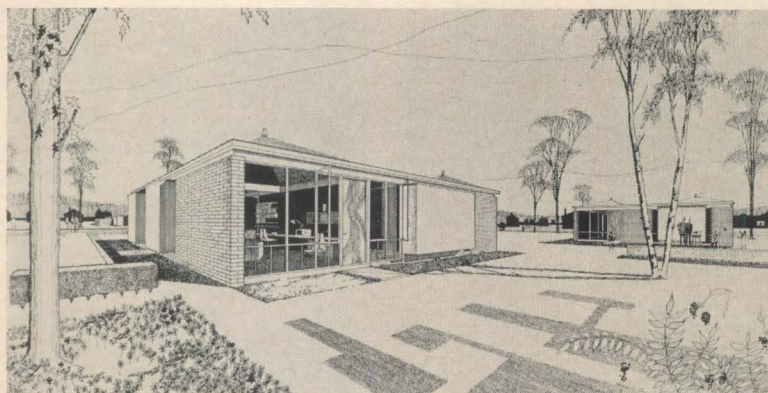
Initial building of the center (*above*)



will contain a theater surrounded by flexible space used for library, museum, and classrooms. When there is need for expansion, the library and art gallery-museum will be moved into their own separate buildings (*left*).

Locsin says he has tried to capture the feeling of a massive form hovering above the ground "dramatically tossed up in the air by the graceful curve of a pyramidal base." Solid masonry is derived from the old walls of the "Intramuros" section of old Manila.

Meathe, Kessler Houses Mount Clemens Again



MOUNT CLEMENS, MICH. Meathe, Kessler & Associates, who a few years ago designed an award-winning public housing project for this town (*bottom*), has come forward with another project in the same category which may well garner acclaim of its own.

The proposed project, some of which is shown in the rendering at left, is notable for unit cost, which is low for the area. The project consists of 25 buildings, encompassing 60 units. Bids have been received, and unit cost emerges as \$9280. Contributing to the economy, yet good looks, of the housing development are the architect's use of construction concepts and techniques infrequently or never used in the public housing field—for instance, prefabricated roof elements and prefabricated closets. The project will contain ten buildings with four one-bedroom units; five containing two two-bedroom units; five having one four-bedroom unit; and five consisting of one five-bedroom unit. The buildings will be scattered on 13 separate sites. Basic materials are: brick veneer exterior walls, aluminum sash, plaster and stud interior partitions, asphalt tile floors.

FOUR NEW PROJECTS AND A REDESIGN SPARK MIT'S DEVELOPMENT

CAMBRIDGE, MASS. News of buildings by Hugh Stubbins, Anderson, Beckwith & Haible, and Skidmore, Owings & Merrill, a redesign by I.M. Pei, and the establishment of a structural models testing laboratory make Massachusetts Institute of Technology by far the most newsworthy school this month.

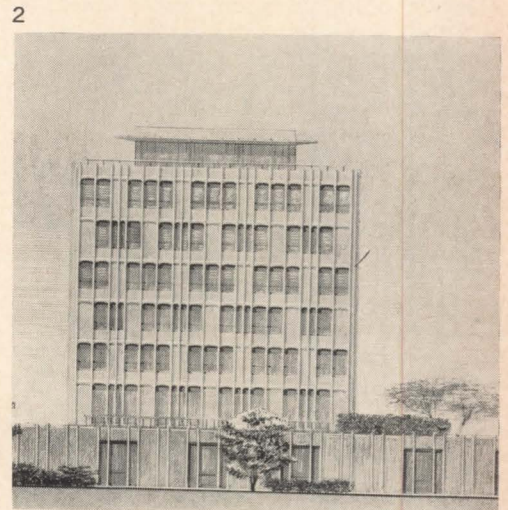
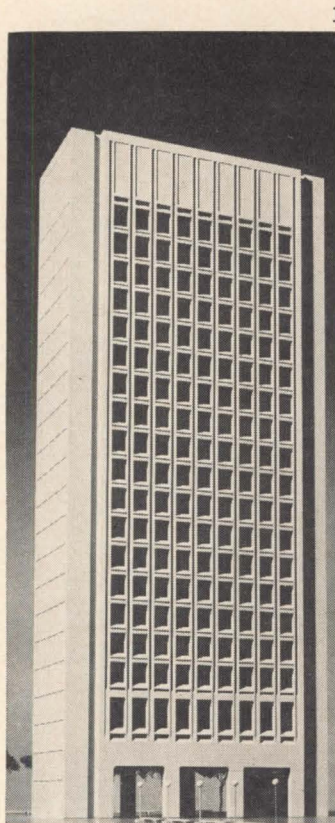
Pei's Center for Earth Sciences (1), to begin construction early this year, has been changed in concept from an oval-windowed structure to a more conservative use of rectangular windows. The result is still an emphatic design. Construction of the center will cost \$5,000,000.

Also scheduled for early commencement of construction is a \$2,000,000 women's dormitory (2) by Anderson, Beckwith & Haible. This building, to be just west of Harvard Bridge at the corner of Danforth Street and Memorial Drive, will contain quarters for 125 women students, guest rooms, a faculty residence suite, and offices.

A third project to begin during the early weeks of 1962 is the married students' housing center (3) by Hugh A. Stubbins & Associates. The center will be composed of a high-rise apartment building surrounded on three sides by three-story apartment structures. The tower will contain 90 efficiency apartments, 60 one-bedroom apartments, a store, and a laundry. The smaller buildings will each contain 20 two-bedroom apartments. The high-rise building will have reinforced concrete piers at each corner carrying heating and ventilation ducts. The 210 units provided in this project will be doubled in the future, according to present plans.

Visual material on the Center for Materials Science and Engineering, by the Chicago office of Skidmore, Owings & Merrill, is not available as we go to press. It will be a five-story, basementless building sited in what is now MIT's main parking lot. The center will contain facilities for research projects from the departments of electrical engineering, metallurgy, chemistry, and physics, plus central laboratories for crystal preparation, analytical chemistry, and electron microscopy.

MIT has received a grant of \$250,000 from the Perini Memorial Foundation, Inc., for the establishment of a laboratory for structural models testing. This facility, which will furnish findings of interest to all architects and engineers, will be the first of its kind in the United States.

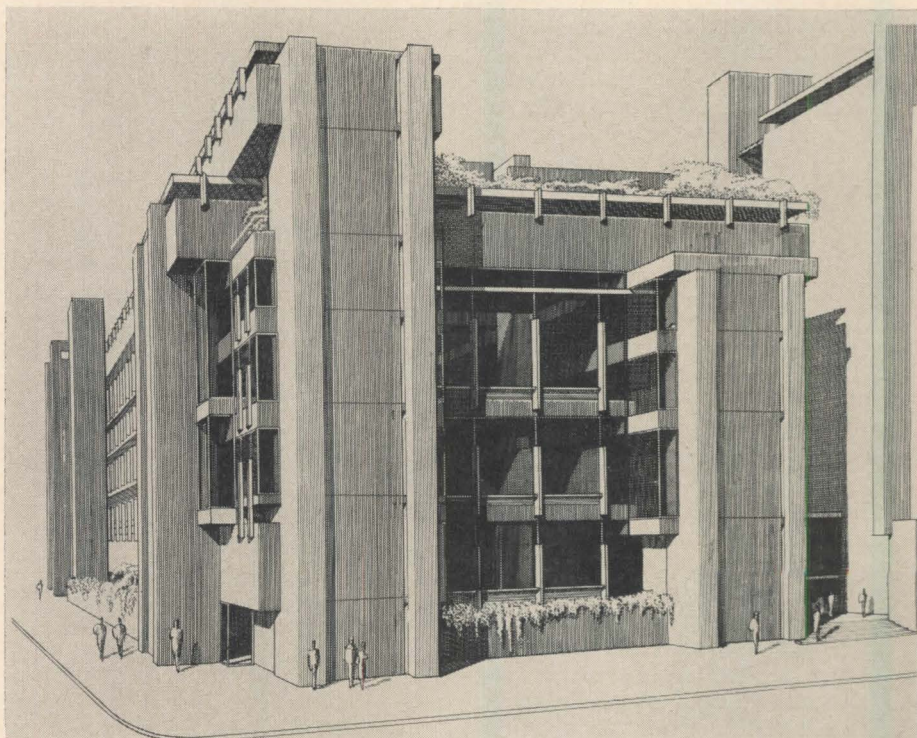


NEW HAVEN, CONN. Groundbreaking ceremonies have been held for Yale University's Art and Architecture Building, presumably calling a halt to revisions which reportedly have been going on since prior to the time that P/A showed the initial publicized design (p. 58, AUGUST 1960 P/A).

The new design is said by the architect, Paul Rudolph (also Head of the Department of Architecture), to echo the feeling of older buildings on the campus through use of towers and irregular roof lines. Exterior glazing will be less than 40 per cent, the remaining surfaces being the reinforced concrete structure with its special, exposed-aggregate finish. The concrete will be exposed on both exterior and interior surfaces. A new element, "designed to stimulate communication through works between the various disciplines in the School," will be a large jury room at the center of the first floor. Total square footage of the building—for use as classrooms, library, offices, and jury room—will be 105,000.

Together with the Fine Arts Gallery (across the street) and the History of Art Department, Yale will have, with the new building, what its public relations department calls a complete Center for the Fine Arts.

Design Jelled for Yale Art & Architectural School



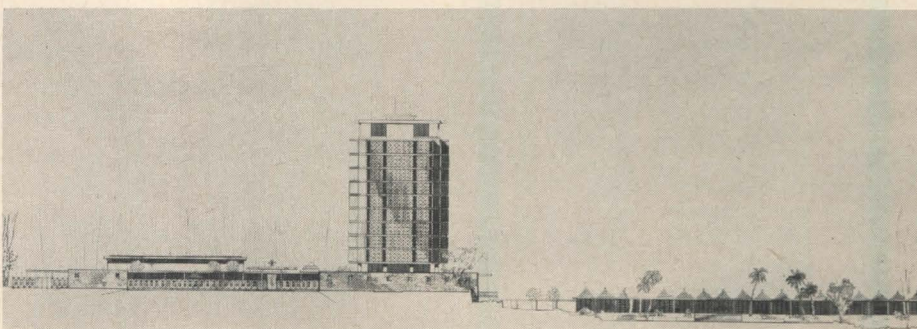
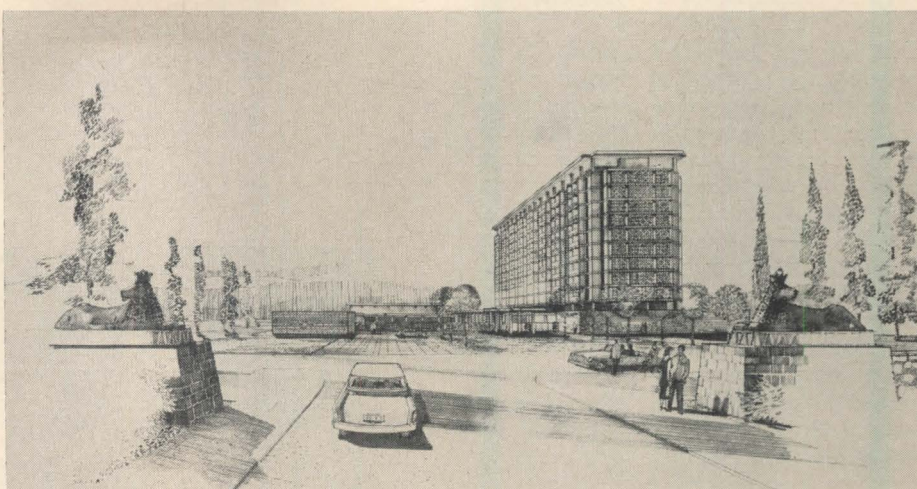
EMPEROR OK'S ADDIS ABABA HILTON

ADDIS ABABA, ETHIOPIA It is not often that the top man of a whole country gives his personal benediction to a hotel project, but when Charles Warner of Warner, Burns, Toan & Lunde, New York, took the plans and drawings for the Addis Ababa Hilton to Ethiopia's capital city, that is exactly what happened. Warner showed the material to, and got the approval of, no less than the Lion of Judah, Emperor Haile Selassie himself!

The guest tower of the hotel will rise from a base containing lobby, bar, restaurant, coffee shop, office, shops, service areas, and ballroom. On the top floor, the twelfth, will be a cocktail lounge, bar, and roof garden. A series of cabañas will extend from the hotel past a huge swimming pool. All elements are set in lavishly landscaped grounds.

A unique provision of the Addis Ababa Hilton is an Imperial salon and garden for Haile Selassie and his court. A separate entrance leads to this element; and the salon is connected with the royal box overlooking the ballroom.

Associate Architect is Toro-Ferrer, San Juan, Puerto Rico.

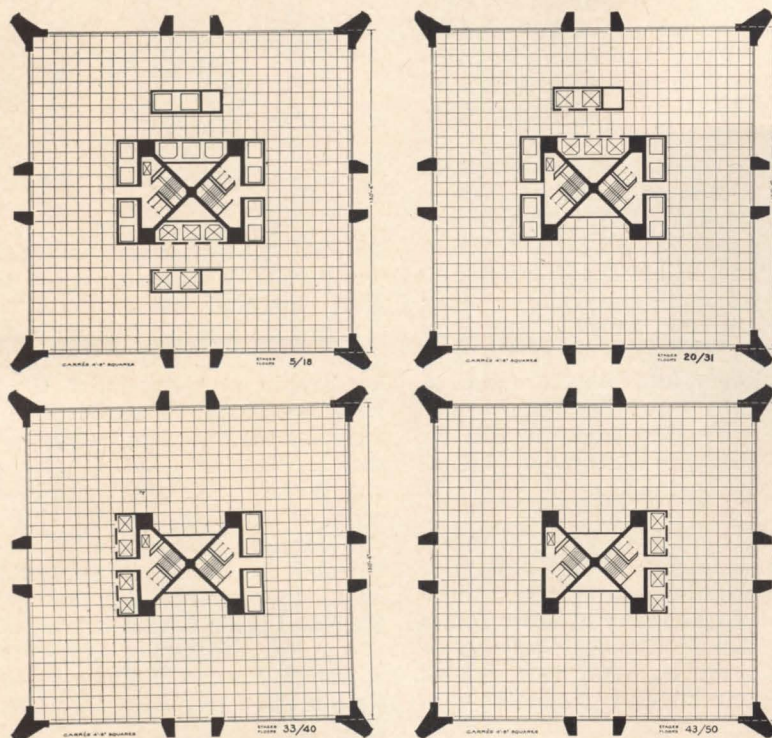
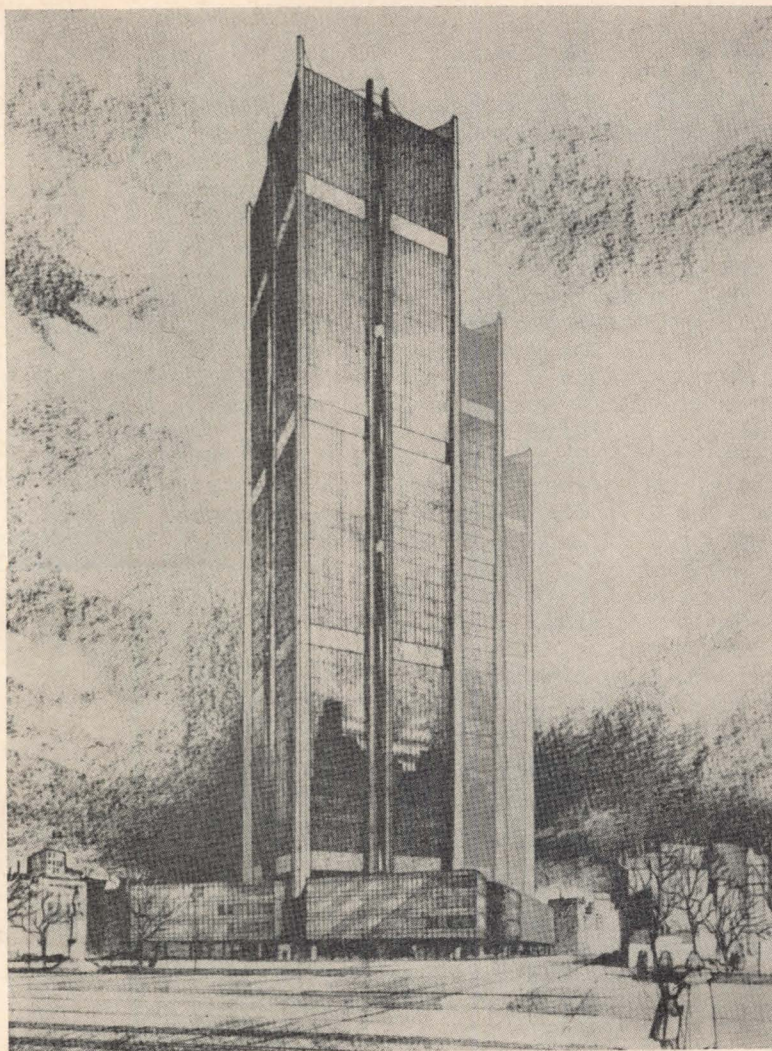


THREE-MASTED MAMMOTH FOR MONTREAL

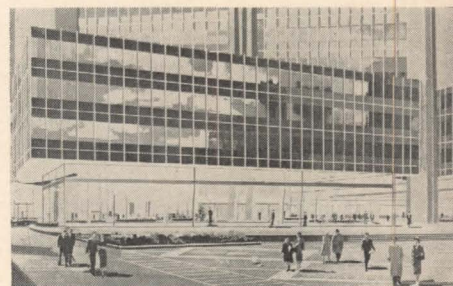
MONTREAL, QUE., CANADA A few blocks south of Montreal's abuilding Place Ville Marie (pp. 123-135, FEBRUARY 1960 P/A), there will rise what sponsors say will be the largest office complex in the world. Designed by Pier Luigi Nervi and Luigi Moretti, the project will consist of three 51-story buildings rising from a common four-story base. The complex is intended to become the heart of the Montreal financial world.

The towers will have reinforced concrete structural frames separated from the framing of the "mezzanine" floors and underground area; foundation will rest on rock. Ribbed slab floors will span 45 ft from the rigid concrete core to the exterior columns, which will extend as fins at all building corners. Shear walls for earthquake resistance will extend from the core to outside columns at four different levels. Exterior columns will taper from bottom to top; they will measure 9 ft square at the base. The column-free interiors will be planned on a 4 ft-8 in. module for flexible office partitioning. Underground parking for more than 1500 automobiles will be provided on six underground levels. Access to these levels will be via escalators and ramps; to the towers, by 22 elevators in each structure. Mechanical and utility services in the core will decrease as towers go higher.

Extensive credits, in addition to Nervi and Moretti, are: Greenspoon, Freedlander & Dunne and Jacques Morin of Montreal as Associates and Consulting Architects; J. B. Carswell of Toronto, Guy B. Panero and Paul Weidlinger of New York, and d'Allemagne & Barbacki, Letendre Monti & Associates, and Wiggs, Wallingford, Frost & Lindsay, all of Montreal, as Consulting Engineers; Professor H. Spence-Sales of Montreal as "Civic Designer"; and, as Project Manager, Panero-Weidlinger-Salvadori, Ltd.



Typical floor plans show partitioning module and large spans from core to columns.



Plazas and arcades at ground level will relate complex to Place Victoria.

PERSONALITIES

A few years ago, during the P/A Design Awards judging, one of our witty jurors looked at an entry and quipped, "That's one of Vincent Kling's jobs. Let's give it something: he's got such nice wavy hair." Well, as you can see on page 114 of this issue, Kling gets the big one this year, and he made it not by a hair, but by unanimous vote of the jury.



Forty-five-year-old Kling established his Philadelphia practice 15 years ago, and has since seen it grow to one of the largest in the country. A perennial award winner, he has honors from Philadelphia chapter AIA, the Pennsylvania Society of Architects, the New Jersey Society of Architects, and the Philadelphia Arts Festival; he recently received a gold medal and certificate of honor from Quito, Ecuador, for his design of the U.S. Embassy there. This year's First Design Award tops off seven Award Citations he has garnered in previous P/A Design Awards Programs.

Graduated from Columbia University with a B.Arch. and from Massachusetts Institute of Technology with a M.Arch., Kling served from 1941 to 1945 as an aviation officer in the United States Naval Reserve. Since establishing his firm in 1946, he has become increasingly active in both civic and professional groups, belonging to some 14 such organizations, including the American Arbitration Association, Pennsylvania and New Jersey Societies of Architects, American Society for Testing Materials, Building Research Institute, U.S. Naval Institute, the Overbrook Episcopal Academy and the Bryn Mawr Presbyterian Church, and the Industrial and Professional Advisory Council to the College of Engineering and Architecture of Pennsylvania State University. He is an associate trustee of the University of Pennsylvania and director of the

Alumni Association of the School of Architecture of Columbia University. Quite a busy man.

EDWARD D. STONE received a Gold Medal Award from the National Institute of Social Sciences; previous recipients include Rudolph Bing and Marian Anderson . . . New York has its first architect as a member of the City Planning Commission in the person of HARMON GOLDSTONE; he is also president of the Municipal Arts Society . . . JOHN E. MCGUIRE was made president of Southwest Washington chapter AIA . . . the Nebraska chapter has as its new president WILLIAM STEELE . . . Student JERRY CARROLL won competition for design of a parking garage as part of the new downtown St. Louis Stadium project; competition was sponsored at Washington University by Missouri Association of Prestressed Concrete . . . An eagle-eyed reader writes that the Stanford Shopping Center referred to on p. 68 of the SEPTEMBER 1961 P/A is the work of WELTON BECKETT rather than JOHN S. BOLLES; Bolles did the Macy store within the center . . . MAX ABRAMOVITZ was selected to head the new Advisory Committee on School Construction for New York City's Board of Education; committee includes two architects, four engineers, and a construction consultant . . . The \$20,000 Kaufmann International Design Award was given to WALTER GROPIUS; award is dedicated to the memory of Liliane S. and Edgar J. Kaufmann . . . Dr. Gropius also received the Gold Medal of the Royal Society of Arts from the Duke of Edinburgh . . . Distinguished Service Award of the American Institute of Planners went to CHARLES WILLIAM ELIOT II, professor of City and Regional Planning at Harvard Graduate School of Design . . . ANSON BOYD, State Architect of California and chief of its Division of Architecture, will retire March 31; no decision yet on his successor . . . Jury for second annual Reynolds Aluminum Prize for Architectural Students is OLINDO GROSSI, LINN SMITH, and HAROLD SPITZNAGEL . . . The "Earl Frey" credited with the Emerson Electric research house in OCTOBER 1961 P/A should read EARL FEY.

Architecture almost lost a talented practitioner during the school days of **Leandro Locsin**. Locsin spent three years at the University of Santo Tomas in his native Philippines studying piano. Although he went on to get his degree in architecture from the university and to become the hottest thing to happen to architecture in the area for many a year, Locsin still finds time

each day to line out a little Bach on the ivories. He attributes the beginnings of his design career to three men who, early on, saw the possibilities in a young music student-cum-architect. Fernando Zobel, noted painter and executive of Ayala and Co. (where Locsin put in some drafting time while in school) encouraged his interest in religious architecture, and Frederic Ossorio and Father Delaney saw them to fruition in his first major commissions: a chapel for Don Bosco School and the Chapel of the Holy Sacrifice at the University of the Philippines. Locsin has followed up these commissions with a number of residences, several commercial buildings, a hotel, apartments, and a good deal of interior and exhibit design. (A major commission now on the boards is



the Philippine-American Cultural Center, p. 60.) Within the space of six years, his staff has grown from one draftsman to an office with fifteen architects. Awarded a Smith-Mundt Leadership and Specialist Grant in 1960, Locsin came stateside to observe a number of practices here, including those of Saarinen, Rudolph, and Johnson. While in this country, he also lectured on architecture at the University of Georgia School of Art. His most recent honor came just last year, when he became the first Filipino to receive the Pan Pacific Architectural Citation of the Hawaii chapter AIA (previous winners: Kenzo Tange and Roy Grounds).

Sketches by *Romano Corbelli*

On Fighting City Hall

You can't fight City Hall, says an old adage, but the Cooper Square area of New York has done just that.

Four years ago the city announced its redevelopment proposal for the area bounded by Delancey and East Ninth Streets, Second and Third Avenues—complete clearance of the varied neighborhood, to be followed by a ghetto of middle-income co-operative housing. In its disregard for the area's existing life, the city plan would displace the majority of residents (only 7 per cent could afford the new rents); demolish the major institutions; destroy a sound business district; and uproot 4000 homeless men (to become someone else's problem).

Faced with this unacceptable plan, the area decided to act. It formed the Cooper Square Community Development Committee and Businessmen's Association in 1959, hired Walter Thabit as planning consultant, and with the encouragement of city officials began working on its own proposal.

The Alternate Plan, completed this past summer, has many worthy recommendations; provision of low-rent housing that will permit most residents to remain in the area; retention of several blocks to be reconditioned; continued existence for the important institutions; an experimental unit of artists' housing; another experimental project of furnished rooms; and long-

term resettlement for homeless men.

More significant than the proposals themselves, however, is the process that brought them forth. James Felt, Chairman of the City Planning Commission, commended the Alternate Plan as "a real pilot project" in city community co-operation, with effects that go far beyond Cooper Square. Most gratifying to area residents is Felt's hope that the area will get urban-renewal designation during the coming year. He feels that the new plan has much merit and hopes to see its major aspects become reality.

Charles Abrams (who sparked the area's protest) suggests that the revolutionary procedure by which the plan originated in the neighborhood itself is a sign of the revolt against standard redevelopment. "Are we achieving what we want in these great monolithic projects? Are we recognizing existing values in the city? We must be careful about what we destroy. In this city of diversity, each project should be different. We must recapture that lost word 'community' in every section we redevelop."

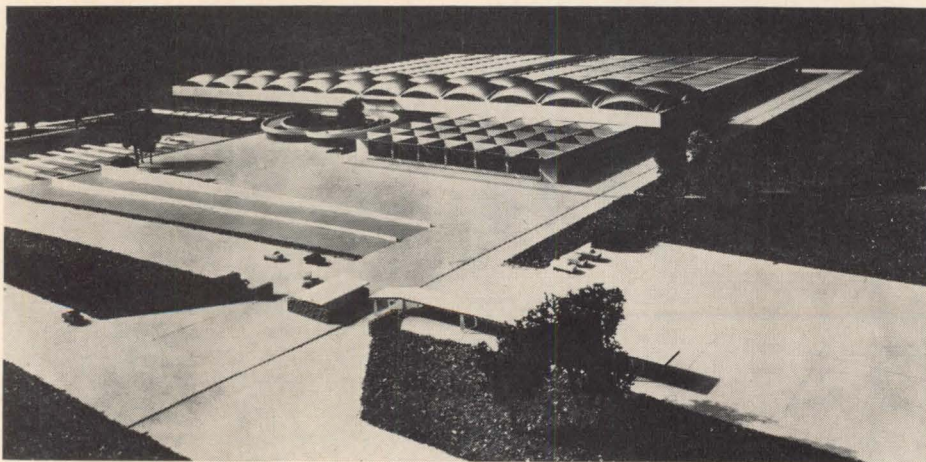
All is not settled for Cooper Square despite such approval and support. The area will deteriorate further while official decisions move slowly along. The final outcome is uncertain for various parts of the Alternate Plan. But a threatened area has spoken up effectively in its own behalf, and the city will be the better for it.

E. P.



Kling's Civic Center Takes Shape

The Civic Center for the City of Norfolk (Va.), first seen when it won an Award Citation in the 1958 P/A Design Awards Program (pp. 118-19, JANUARY, 1958 P/A), achieved partial actuality earlier this year when its Public Safety Building was completed and dedicated. The next element will be a handsome Municipal Office Tower designed by Vincent G. Kling, with Oliver & Smith of Norfolk. Also planned are a one-story Public Services Building and a two-story Corporation Courts Building. Ten stories of the tower building will house space for the Mayor, City Manager, City Council, and more than 30 administrative agencies, divisions, and departments. Actually, the structure will be 14 stories high, including a two-story lobby at ground level and two mechanical floors on top. The building will have floor-to-ceiling clear glass flush with the outside walls. Protecting this surface from the Tidewater sun will be panes of tinted glass hung 3 ft out on lightweight tubular metal frames projecting from the building columns. Louvered aluminum grids at the top of windows will perform the double function of further screening the sun's rays and serving as walkways for window washers. Kling states, "The tinted glass, louver sun shields, and the cooling effect of free air convection between the two glass layers reduces the solar load so effectively that the result is the equivalent of a building with only 40 per cent glass." A landscaped plaza will surround the city building. Consulting engineers are Fraioli, Blum & Yesselman and Charles S. Leopold, Inc. Ebasco Services, Inc., is space planning consultant.



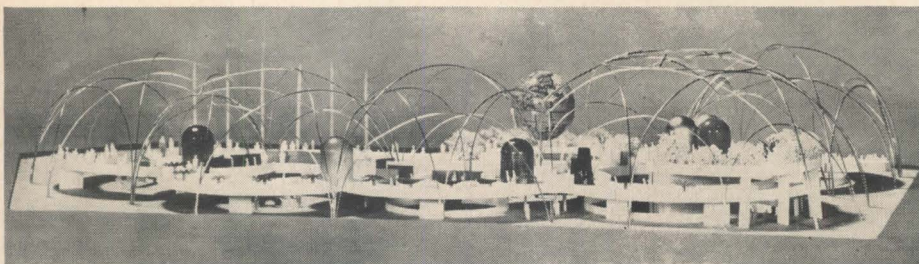
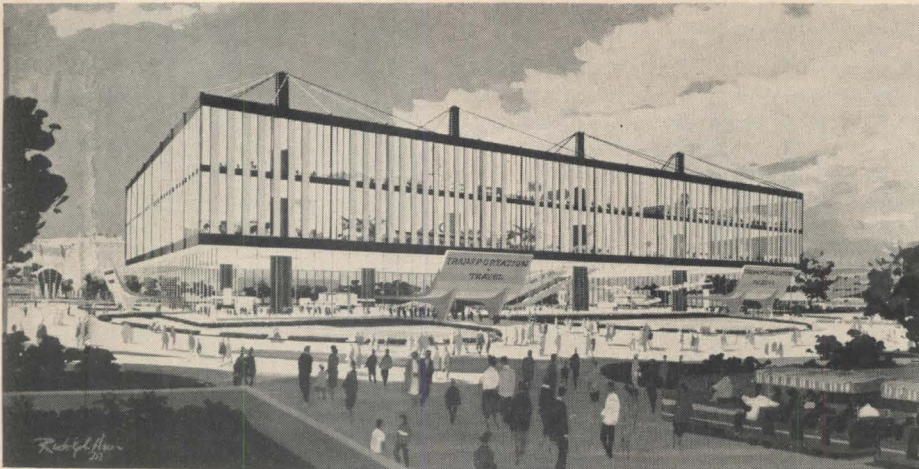
Post-Hansel & Gretel Candy Building

A candy building quite unlike the one in which Hansel and Gretel got into so much trouble will be the Buitoni-Perugina chocolate factory near Perugia, Italy. To be the largest such plant in Europe, the factory, designed by Architect Rusconi Clerici of Milan, will house more than 3000 employees.

Loading and unloading operations will be performed at ground level, where trains will come right up to the plant, and at the second level, where a circular ramp will bring trucks to the delivery entrances. An "American-style" cafeteria will be able to service 2000 people in 15 minutes.

Twin-Towered High-Rise for Detroit

The Majestic Building, Detroit's first skyscraper, is being torn down to give



THAT FAIR AGAIN

As we go to press, three new pavilions have been announced for the New York World's Fair:

For the Transportation and Travel Pavilion, Charles Luckman Associates has designed a structure (*top*) which is largely cable-supported from eight pylons. It will have 153,000 sq ft of rentable space.

A 77,000-sq-ft pavilion for the display of business equipment (*center*) has been designed by James Stanley Goldstein. This pavilion will feature three separate levels roofed over by five interconnected, gold-anodized alu-

minum geodesic domes. The whole affair will be alive with curvy balconies, ramps, and plazas.

Design by Voorhees, Walker, Smith, Smith & Haines for the E.I. du Pont de Nemours & Company exhibit (*bottom*) appears to be a ghost of the 1939 Fair. This traditional approach to pavilion design will house four theaters to "demonstrate the story of human progress," each seating 275 viewers. The ground floor of the 33,678-sq-ft building will contain exhibits of the company's products.

O tempora, o Moses.

Continued from page 65

way to a double-towered high-rise office building designed by Smith, Hinchman & Grylls Associates. The First Federal Building will have two 22-story towers connected by a core area containing elevators, mechanical equipment, stairs, wash rooms, and other facilities. The owner, First Federal Savings of Detroit, will occupy



the first five floors. Part of the site will be reserved for a plaza fronting on Michigan Avenue, and the building will have a "galleria" of shops, cafés, etc., along the north side at ground level. The Plaza is expected to continue the open feeling created by the recent demolition of the Old City Hall to provide a proposed public park. The building will be sheathed in dark, polished metal and will be illuminated as a showplace at night.

Major Fabric Show Will Travel

"Fabric International," which had a dazzling showing at the Philadelphia Museum College of Art and is currently delighting New Yorkers at the Museum of Contemporary Crafts, is an exhibition of more than 160 fabrics from 40 countries. The exhibits range from the primitive to the sophisticated, from the conservative to the experimental. Of interest to architects is the emphasis on structure of fabrics, rather than just "pretty pictures." Designer Jack Lenor Larsen, who organized the show, commented on the architect's role in fabric design at a recent meeting in New York:

Continued on page 70



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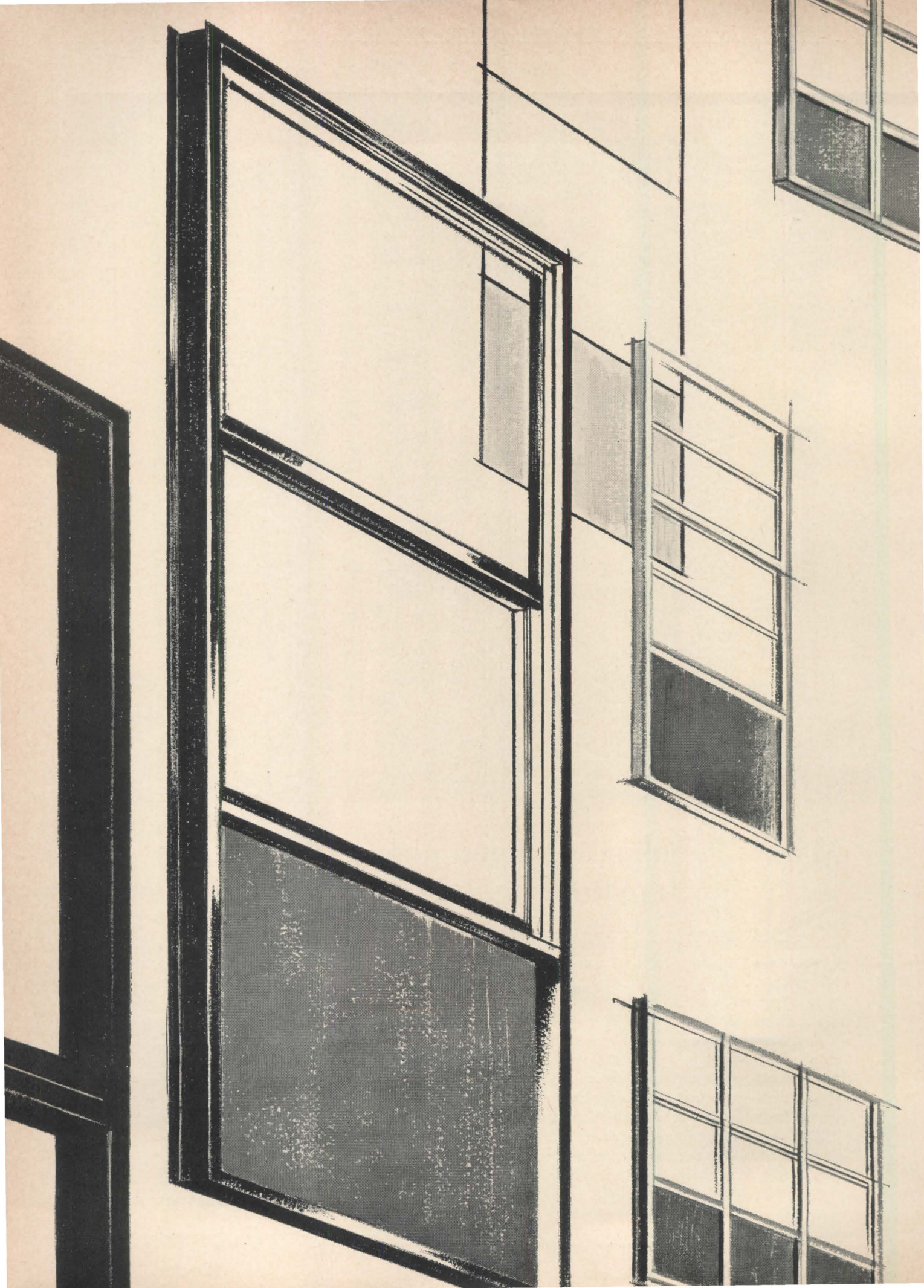
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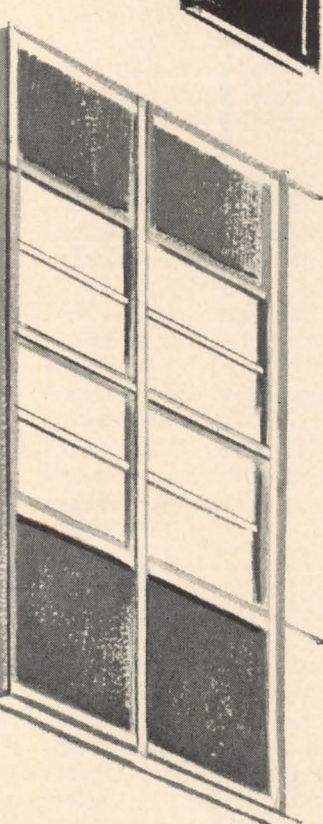
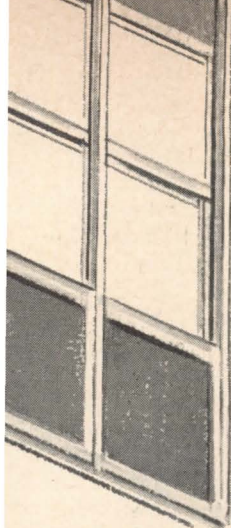
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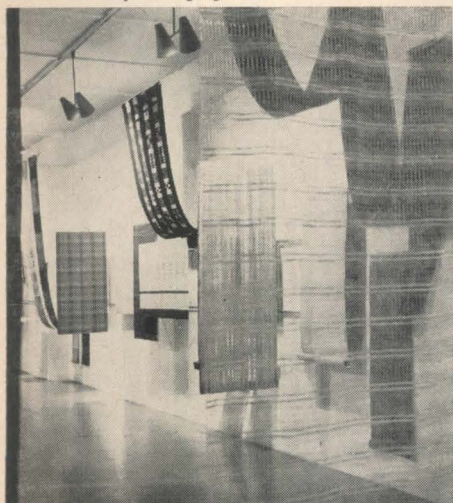
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Continued from page 66



"Although the architects have cleared the decks and sharpened our sense of structure, texture, and color *per se*, they have created a generation of weavers who understand less well the terminology of fabric than that of design. Only if weavers overcome this laxness will they reinvent in their own terms some of the forgotten techniques. Otherwise we subsist on the stylist's dilute revivals." Perhaps so, but the exhibit does not seem to bear out this gloomy pronouncement.

After closing in New York, the show

will appear at the Currier Art Gallery in Manchester, N. H. Approximately ten other bookings throughout the country will follow. The show can be scheduled by AIA chapters and other design-conscious groups through The American Federation of Arts, 41 East 65 Street, New York 21, N. Y.

Pleasant Picadilly Plan May Proceed

Sir William Holford's plan for Picadilly Circus (p. 60, NOVEMBER 1961 P/A), viewed favorably by the London County Council, may have a chance. Control of nearly a quarter of the Picadilly property has been acquired by a Dr. S.E. Zygmunt, who says he would like to follow the Holford plan.

New Chicago School?

Philip Johnson, as member of a panel on urban redevelopment assembled by John Entenza for the Graham Foundation for Advanced Studies in the Fine Arts, gave voice to the opinion that we may be witnesses to a new "Chicago School" of architecture. Decrying the evident confusion in present-day American architecture, archi-

tecture's gadfly said that Chicago leads in having a cohesive group of designers—"Best of all, and by far the best, is Mies in Chicago, the Academy of today led by those great conservative firms of Skidmore, Owings & Merrill and Naess & Murphy. Here in this city you have the only large body of consistent contemporary design being done anywhere in the world. The term 'Chicago School' which we in the East in our provincial way think of as referring to the '80s and '90s—even the meaning of that phrase is going to have to change."

SHOWCASE

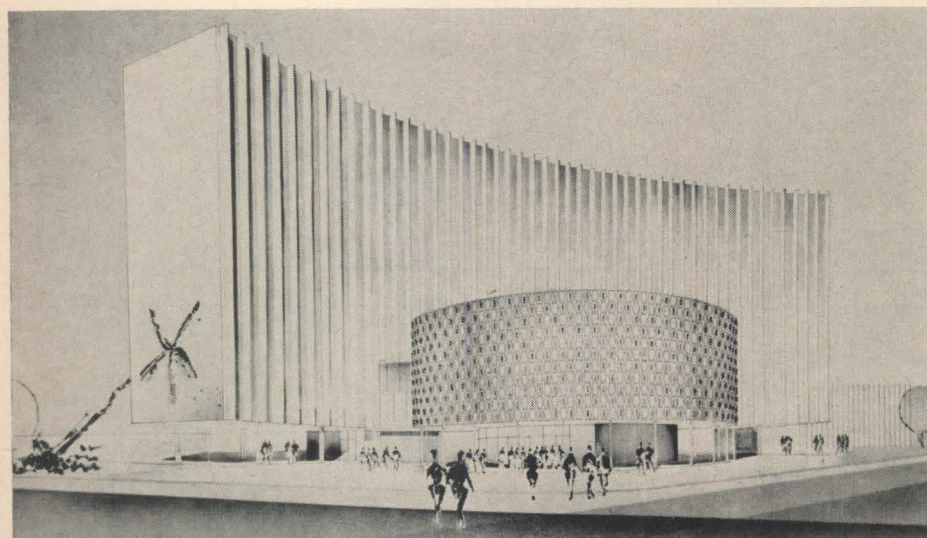
Armstrong Cork Company has established a Rockefeller Center showcase for its products aimed at the architect and designer. Address: 60 W. 49 St.

COMPETITIONS

Deadline for Peugeot competition has been set back one month: February 12 for mailing and February 22 for receipt . . . Jury for 4th annual competition of Ruberoid/Matico is composed of Architects Minoru Yamasaki, B. Sumner Gruzzen, and Vernon DeMars, Developer James H. Scheuer, Urban Renewal Administration Commissioner William L. Slayton, and, as jury head, Edmund N. Bacon, Executive Director of the Philadelphia City Planning Commission. Theme of the competition is "Improved Human Environment Through Urban Renewal." Registration forms and other details are available from The Ruberoid Co., 733 Third Avenue, New York 17, N.Y. . . . Another competition for buildings at the University College in Dublin is under way. Applications must be received by February 15, and projects by September 1. Write M. Macderhott, Competition Registrar, University College, Earlsfort Terrace, Dublin, Ireland.

CALENDAR

Air-Conditioning, Refrigeration and Heating Industry has its 12th National Exposition in Los Angeles February 11-14 . . . National Engineer's Week is on the 18th through the 24th of next month . . . New York's Coliseum is the scene of the 6th National Electrical Industry Show March 11-14 . . . "Functions of the Architect" is the theme of the 1962 convention of New Jersey AIA, set for June 14-16 at Spring Lake, N.J.



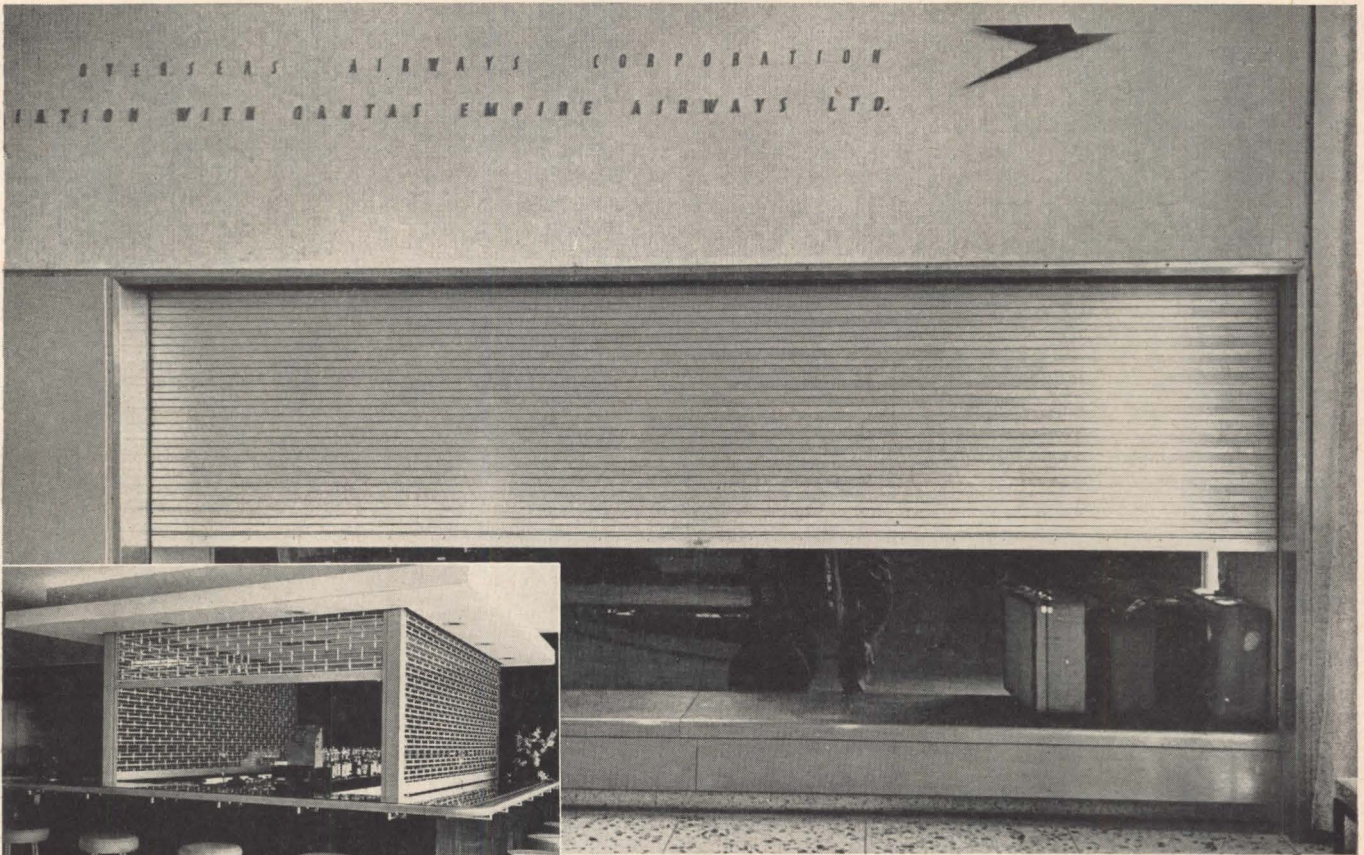
THROWBACK DESIGN WINS PAHO COMPETITION

This design, looking for all the world like one of the pavilions at Robert Moses's upcoming World's Fair, is, believe it or not, the winner of an international competition for the design of the Pan American Health Organization's headquarters in Washington. Admittedly, the competition attracted only 57 entries from the Americas, according to PAHO. The winning proposal, by Roman Fresnedo

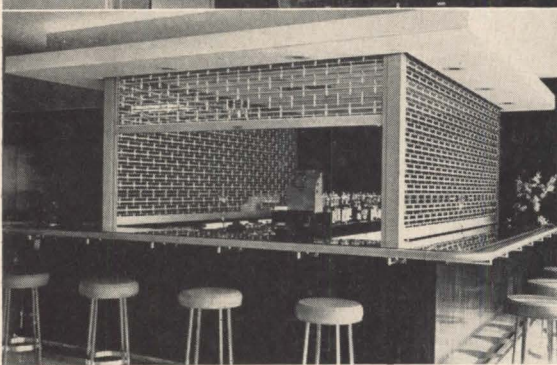
Siri of Montevideo, Uruguay, provides two main units: an 11-story, crescent-shaped office building connected to a three-story, circular council chamber. Jury consisted of Architects Leon Chatelain (U.S.A.), Héctor Mardones-Restat (Chile), Luis González Aparicio (Mexico), Augusto Guzmán Robles (Peru), and Samuel Inman Cooper (U.S.A.), and Pan American Sanitary Bureau Director Abraham Horwitz.



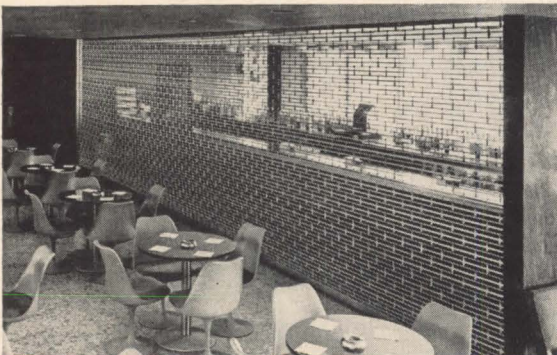
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AIA Takes Lead in Advising on Fall-Out Measures



By E. E. Halmos, Jr.

Architects are moving to take the lead in an effort to get some sort of order—and some sort of rules that make sense—into the field of fall-out shelter construction.

Within the next two months, you can look for a meeting between a construction industry group headed by the American Institute of Architects and including the presidents of engineering and construction organizations, and top officials of the Defense Department (now charged with civil defense).

Purpose will be to collect available information (most of it in the hands of Defense anyway) and try to work out some standards both of construction and equipment that will be practical, reasonably economical, and can be followed by local officials as well as architects and builders.

The Defense Department is apparently quite happy to let civilian groups such as AIA take the ball on this; it doesn't want to promulgate any national rules of its own because of difficulties of administration, and because it obviously fears stirring up any new controversies over Federal dictation to local and private authorities.

Spur for the action is the sudden appearance of shoddy "contractors" and other operators out to make a fast killing in a field where very few facts are known, but where public concern is beginning to create something approaching a panic market.

As architects know, the Defense Department now has about \$200 million to spend on shelters (and may ask for a total of \$700 million when Congress gets around to budget considerations), but wants to concentrate on shelters in the most populated areas. Federal boost for private shelter construction doesn't seem to be in the cards—but the Government would like to be ready to answer questions, anyway.

Little Legislation

Architects can look for very little in the way of major legislation that will

affect them directly, now that Congress is back at work in Washington.

Fact is there's very little on the books now that stands any chance of enactment, except local, vote-getting bills such as additional public works projects. With an election due in November, Congress is aiming for a short session (maybe recessing by the end of July), and doesn't want to be bothered with complex legislation that the voters won't understand easily.

So it would appear that such moves as tax-relief for the self-employed, upgrading Federal technical employees, and greater fees for consultants to Government departments, will get very short shrift. They're too little understood by the general public and affect too few voters.

School aid proposals are generally counted dead for this session, as are further funds for airport construction, highways and the like. (Most were handled last session on a two-year basis specifically to get them out of contention this year.) And as to appropriations for construction, don't look for any major increases: the Administration, as well as Congress, have an overriding interest in presenting a balanced budget this time.

Presidential Proposals

On a broader scale, however, three pieces of legislation likely to be proposed by the Kennedy Administration will be of special interest: tax reforms; a "Department of Urban Affairs" or a "Department of Transportation"; and changes in tariff policies.

Any of these is sure to start a battle in Congress, and it doesn't now seem very likely that any will be passed without at least drastic revision. Fact is, it's much more likely that the Urban Affairs and Transportation department ideas will simply be suggested to fulfill campaign and political promises, then allowed to simmer with little action.

Tax reform, however, is another matter. President Kennedy would like on the one hand to stimulate business, on the other to gain more revenue.

For architects and the construction industry, key provisions in tax proposals would allow faster—and greater—depreciation on new plant and machinery in the hope of getting more construction underway.

The tariff changes could affect prices of many construction materials since the President obviously wants

broader power to cut tariffs on foreign-made items (across the board instead of item-by-item as now provided) for use in dealing with foreign nations. Obviously there'll be a fight over such a proposal: too many home-district industries could be hurt. But even limited approval could put some foreign-made construction items into better competitive position.

Udall vs. the Marble Graveyard

Interior Secretary Stewart Udall, fast becoming the Kennedy Administration's *enfant terrible*, opened his mouth at AIA's Octagon House dedication (as a National Historic Landmark), and promptly got it full of statues.

Udall, who has taken on architects, sculptors, planners, and the city's professional football team in his short tenure of office, has recently been inveighing against the city's plethora of statuary and monumental architecture, and managed to ship one statue (of William Jennings Bryan) out of town. Then he tried to get rid of another statue of a famous medical man. Trouble was, the doctor's statue is owned by the Navy Department, not Interior.

Speaking at the Octagon dedication, the doughty Secretary commented that Washington has statues of inventors and Uruguayan gauchos, "but none of Thomas Paine or Nathan Hale." (There is one of the latter).

FINANCIAL

The year 1962 should be a good year for construction, with a rise of up to 5 per cent in gross business but no spectacular boom, whatever the rest of the economy does.

That's the consensus of the forecasts now beginning to appear. Most agree that 1962 will be a \$60-billion year for construction (up about \$2.7 billion over estimates for 1961), with a little more than a third of that total (\$24 billion) being accounted for by housing construction. (Johns-Manville, incidentally, predicted that 1962 construction will account for about 15 per cent of the gross national product.)

Otherwise, there will be increases in volume in all building categories, but none will be of boom proportions.

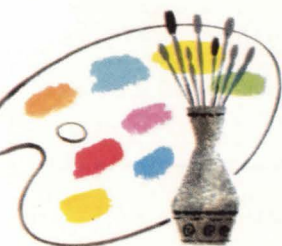
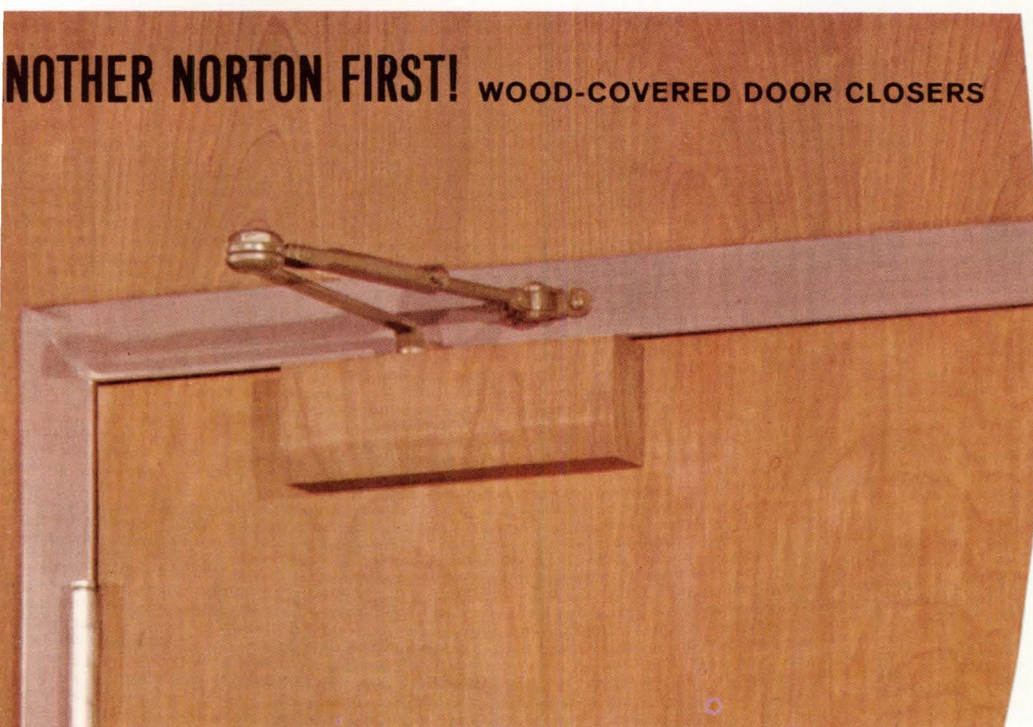
Reasons are good: Government spending won't be up too much (about \$1 billion); private spending will be up about \$2 billion.

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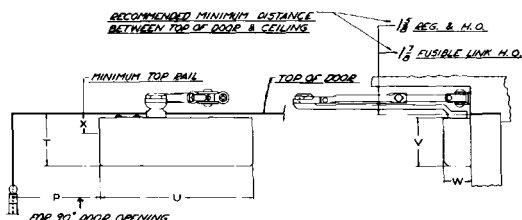
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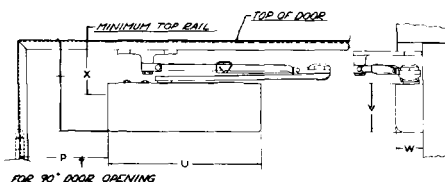
Norton's 7000W closer covered with cherry wood to match the wood of door and room. This is at Christ Community Hospital, Oak Lawn, Illinois. Architect: Burnham & Hammond.



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3'-6"	2'-2"	7003-M	7003-MH	7003-MFL	6 3/4	3 1/16	13 3/4	3 3/4	1 15/16	1 1/4	8
4'-0"	2'-8"	7004	7004-H	7004-FL	6 3/4	3 13/16	13 3/4	3 3/4	1 15/16	1 1/4	8 1/2
4'-6"	3'-2"	7005	7005-H	7005-FL	6 3/4	3 13/16	13 3/4	3 3/4	1 15/16	1 1/4	8 1/2

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2'-8"		P-7003	P-7003-H	P-7003-FL	7 3/4	5 1/4	8 3/4	2 3/4	1 3/4	3	6
3'-0"	2'-4"	P-7003-M	P-7003-MH	P-7003-MFL	5 3/4	5 1/4	13 3/4	3 3/4	1 15/16	3 3/4	8
3'-6"	2'-8"	P-7004	P-7004-H	P-7004-FL	5 3/4	5 1/4	13 3/4	3 3/4	1 15/16	3 3/4	8 1/2
4'-0"	3'-0"	P-7005	P-7005-H	P-7005-FL	5 3/4	5 1/4	13 3/4	3 3/4	1 15/16	3 3/4	8 1/2

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2000 Lee Rd., FA 1-5062

PENNSYLVANIA, Laverock,
Philadelphia 18
H. Van Horn
Van Horn Assoc.
7808 Conwell Road
AD 3-4316

TEXAS, Dallas 19
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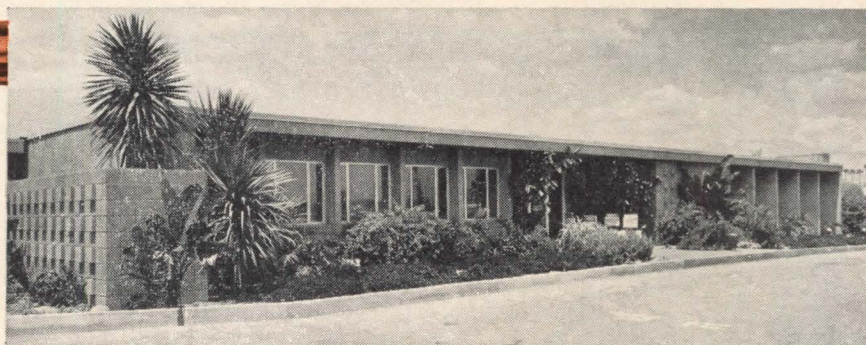
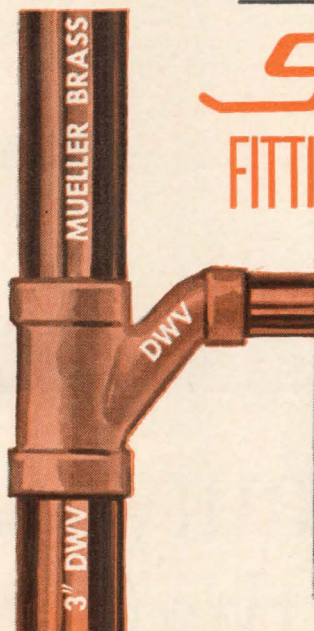
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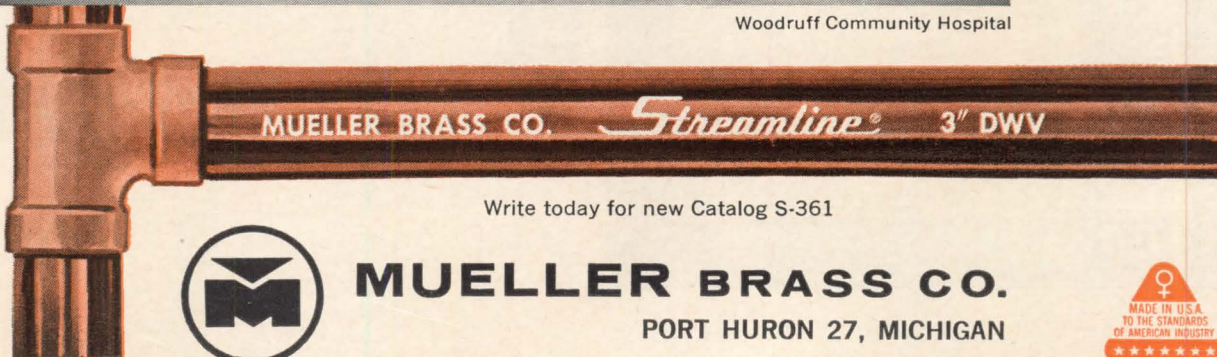
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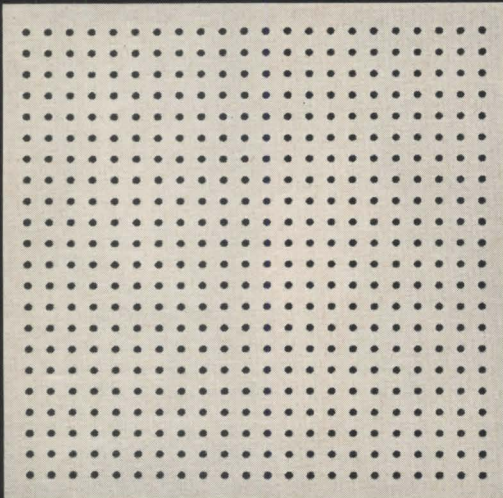
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12x12 tiles and 24x24 or 24x48 lay-in ceiling boards; also in U.L. tested Fire-Rated Lo-Tone tile and ceiling board. Or, for more economical sound control, choose Nu-Wood® cellulose fiber tiles or ceiling boards. See Sweet's Architectural File for noise reduction coefficients and short form specifications on Lo-Tone and Nu-Wood ceilings. ■ For AIA file No. 39-B and samples of these beautiful acoustical products, write Wood Conversion Company, St. Paul 1, Minnesota.

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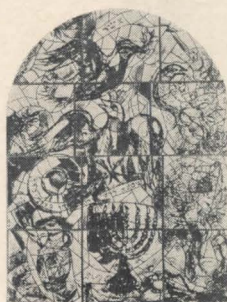
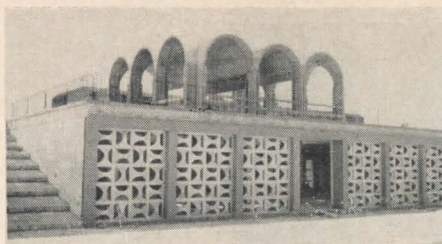


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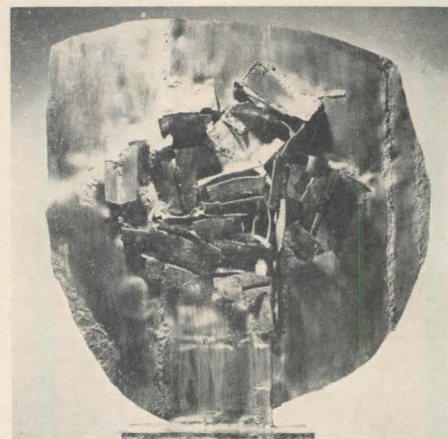


Not since the discovery of that memorable Titian, "Vitruvius Inspecting the Bust of Robert Moses," has there been art world excitement like that attendant upon the sale to the Metropolitan of Rembrandt's "Aristotle Contemplating the Bust of Homer." The museum paid \$2,300,000 for the canvas at the auction of 24 pictures from the collection of the late Alfred W. Erickson.

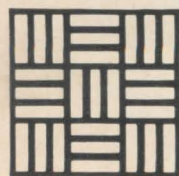
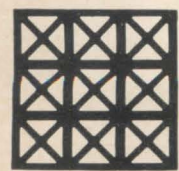
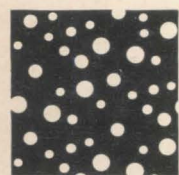
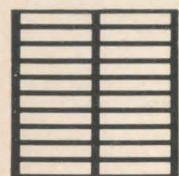


At the Museum of Modern Art, the windows designed by Chagall for the Hadassah-Hebrew University Medical Center in Jerusalem (top) were attracting stand-in-line crowds (though not as many as the thousands visiting the Met's new Rembrandt). As noted here last month, there are occasional bits of opacity in the windows which

this viewer found distracting. Undoubtedly, when the windows are installed under the searing light of Israel, they will glow as they should.



At the Kootz Gallery, there was an exhibition of recent work by sculptor Bernard Rosenthal. This vigorous artist has moved from the polychromed abstractions of a few years ago to great hanging plaques of "black aluminum," and large, roundish pedestal pieces in brass. This one is "Whitsuntide King."



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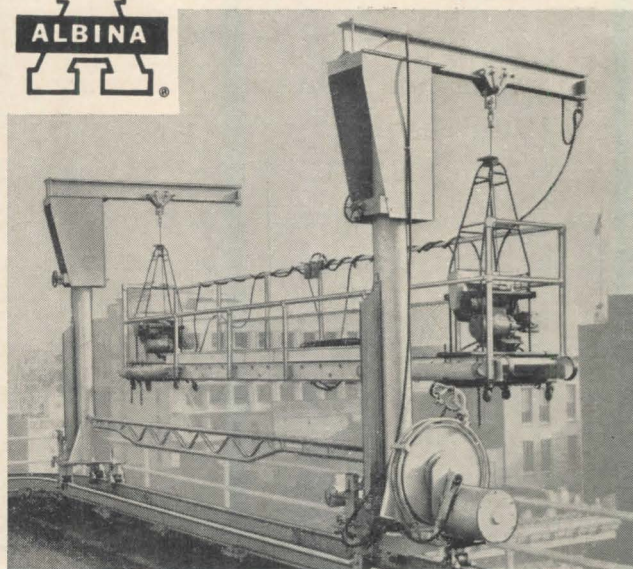
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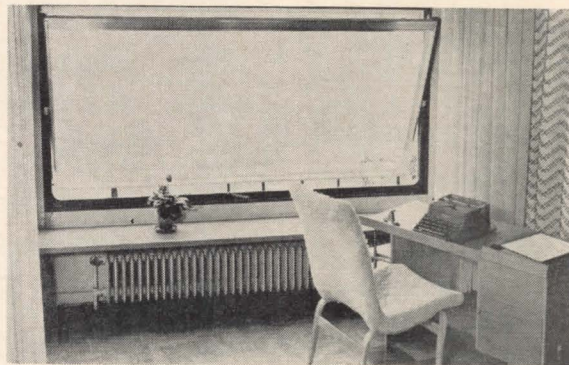
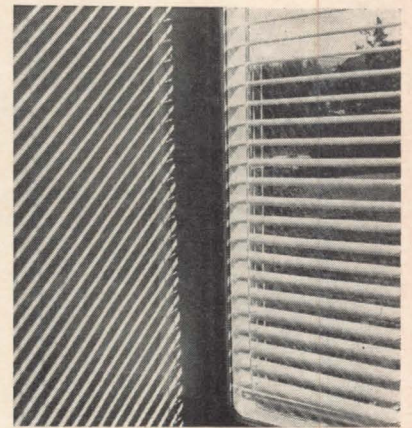
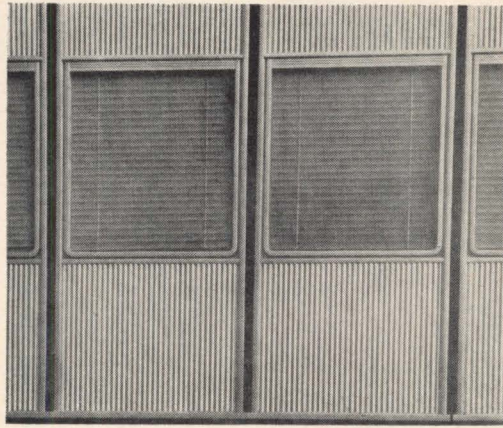
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Versatile Swedish Window Now Made in U.S.

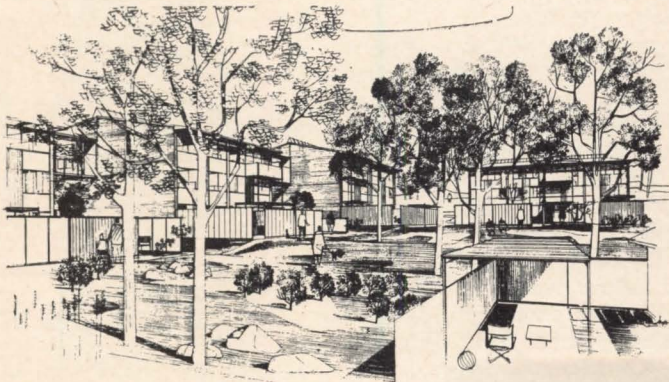
STOW, OHIO A handsome window system which has been in use in Europe for many years is now being manufactured and sold in this country under licenses to the original Swedish company. "Amelco" windows are made of anodized aluminum framing two panes of glass separated by a 2" air space. A built-in venetian blind is located between the panes; it has no unsightly tapes and can be raised out of sight. The vent pivots on a horizontal axis. The windows range up to 7' high by 10' wide.

Integral thermal break of the windows—no through metal in frame or vent—provides superior insulation and eliminates condensation. According to the manufacturer, tests by the American Society of Heating and Air Conditioning Engineers indicated that Amelco windows prevent winter heat loss more than twice as effectively as single glazing and 14% more effectively than insulating glass. The windows provide excellent insulation against heat from the sun. Sound reduction is about 50%. American Elumin Co., 1676 Commerce Dr., Stow, Ohio.

On Free Data Card, Circle 100



Carl Koch Designs Cost-Cutting Residential Building Components

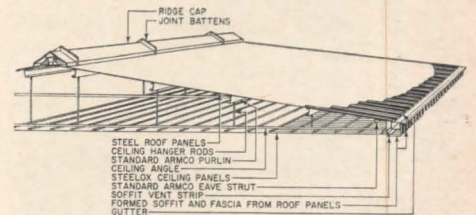


MIDDLETOWN, OHIO Steel building components designed by Carl Koch & Associates as a research program in discovering the material's potential as a low-cost candidate for the residential market are having their first installation in a Koch-designed 28-unit, garden-apartment complex in Middletown, Ohio, home of Armco Steel Corporation, sponsor of the project. Officials of the company estimate that the components may cut construction costs as much as 10 per cent, as well as reducing maintenance.

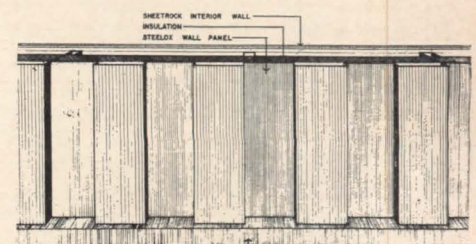
The units, also suitable for schools and light commercial work, include a

roof system of steel panels supported by steel purlins spanning between party walls; purlins also suspend a steel-sheet ceiling especially treated for painting. Steel wall panels, 1½" deep, are backed with 1" x 3" wood furring, a 2" insulating blanket with integral vapor barrier, and one ⅜" gypsum wallboard. Three wall designs were prepared, plus an economical window-wall system. The unique floor system integrates four functions: structural slab, sound barrier, finished ceiling, and air distribution system. Armco Steel Corp., Middletown, Ohio.

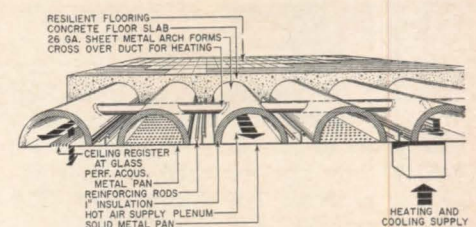
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Roof system



Wall system



Floor system

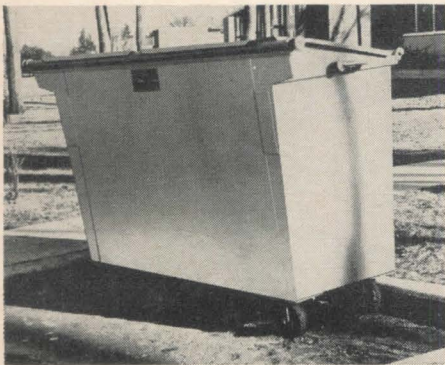
Air Diffusers With Eye Appeal

The "Titus Staccato Line" of extruded aluminum linear air diffusers has louvers recessed at regular intervals to make dash patterns. The recessed sections of the louvers are anodized black, and the raised sections are brushed satin aluminum to stand out against the background. A variety of patterns are available, depending upon the spacing of the raised "dashes" and the distance between the louvers. They all give a "staccato" effect. The diffusers are available in many standard widths, in any length, and with many types of extruded aluminum borders. Titus Staccato Line Catalog SLD-61, Titus Manufacturing Corp., Waterloo, Iowa.

On Free Data Card, Circle 102

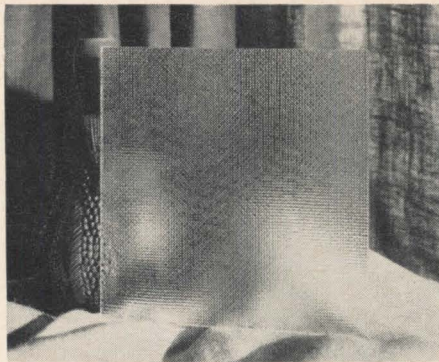
Refuse Container System Obviates Unsightliness

Use by Architect Robert C. Cashin of "Leach Attachable Container System" for garbage disposal at married students' housing at the University of



Wisconsin eliminated unattractive garbage cans and provided efficient removal facilities. The containers, which fit into 4' x 8' "cutout" areas on streets serving the housing, have the equivalent capacity of four 55-gal drums or 7½ 30-gal garbage cans. Measuring 30" wide, the containers are mounted on four rubber wheels with roller bearings. Two front wheels are stationary and two rear wheels are casters for maneuverability. They can be emptied mechanically without spillage. Twice weekly in winter, and three times a week in the summer, the containers are picked up by a "Packmaster" vehicle for transportation to the dumping site, after which they are returned to their individual areas. The Elgin Corp., 222 W. Adams St., Chicago, Ill.

On Free Data Card, Circle 103



A Glass of Sack

Burlap has been combined with glass for a unique new appearance in partitions, interior wall surfaces, shower stalls, etc. The new product provides an appearance that is at once shining and obscure. It is available in two thicknesses: 1/8" and 7/32"; maximum size is 60" x 132". Mississippi Glass Co., 88 Angelica St., St. Louis 7, Mo.

On Free Data Card, Circle 104

Effective New Wood Treatment Process

New process utilizes liquefied petroleum gas in a pressure vessel to deposit preservative chemicals in the fibers of wood. Treatment is said to achieve the cleanest surface and deepest penetration of any wood preserving process. It does not change wood's color, weight, size, strength, workability, or glueability. Wood so treated can be clear-finished or painted, is resistant to termites and decay, does not leach, and does not require re-kiln drying. "Cellon" process makes possible fabrication of lumber and plywood *after* treatment, an operation not practicable before. Oroville, Calif., plant for treatment of poles, cross-arms, and other wood products, is undergoing major expansion, due for completion early next year. Koppers Co., Inc., 430 Seventh Ave., Pittsburgh 19, Pa.

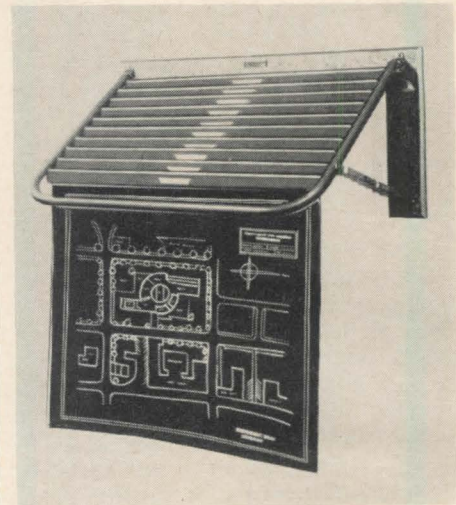
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Incandescent/Fluorescent Tuning with Dimmer

"Hubbell-trol" dimmer operates both incandescent and rapid-start fluorescent lights on the same circuit, with a compact control switch that fits any standard 2" switchbox. Its transformer is remotely surface-mounted—in basement, attic, or nearby closet—so that no special wall construction is required, and no heat is generated in-

side the walls. Light can be smoothly and continuously "tuned" from full brightness to total darkness using the dimmer knob alone, or can be turned on to a selected level from several locations. Harvey Hubbell, Inc., State St. and Bostwick Ave., Bridgeport 2, Conn.

On Free Data Card, Circle 106



Wall-Hanging Drawing File

"Martin Sheet File System" is a wall-file for handling and storage of drawings and blueprints. Consisting of a tubular steel frame mounted on a plywood wall panel, the file has locking hinge support arms and 10 hangers holding up to 30 sheets each. Hangers have rubber-tipped lock clips for clamping the sheets in place. Available in two sizes: Model 30 for sheets up to 30" wide, \$49.50; and Model 42 for sheets up to 42" wide, \$63.80. Lew-bill Industries Inc., P.O. Box 221, Scottdale, Pa.

On Free Data Card, Circle 107

Elbows on the Job Site

Elbows, turns, sweeps, and bends of aluminum-covered pipe insulation now can be fabricated on the job site by using a preformed band called "Miter-Seal." Miter-Seals available for use with pipe sizes from ¾" up to 24", not only eliminate many operations previously necessary for insulating fittings and bends, but also obviate stocking and storage of preformed humped elbows and fitting covers. Fabrication of the insulation for a fitting is done in a few steps, using a length of the same "Metal-On" insulation being used for the straight runs, and ordinary saw, a Miter-Seal band, and a J-M banding wrench. Instructions are available for precise

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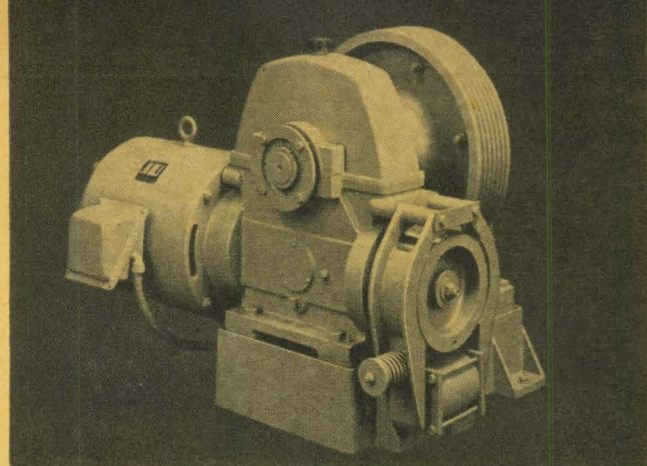
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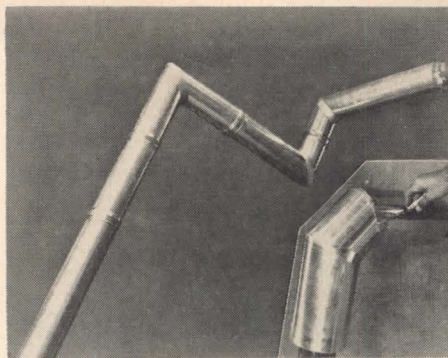


■ Order and rhythm and attention to detail create the interesting facade of this Cincinnati bank building... handsome addition to the suburban community it serves. The crisp handling that gives character to the facade is only one aspect of the scrupulous attention to detail which marks the entire structure. Like so many modern buildings it is served by Dover (formerly Shepard) Elevators, which are built with patient attention to detail to insure dependable vertical transportation. Dover's new Model GDF-25 (above) is a medium duty geared hoisting machine with many advanced features. It is ideal for apartments, clinics, motels, small offices, banks and similar buildings. For complete information see Sweet's Files or write Dover Corporation, Elevator Division, 1135 Kansas, Memphis 2, Tennessee. For more information, circle No. 329

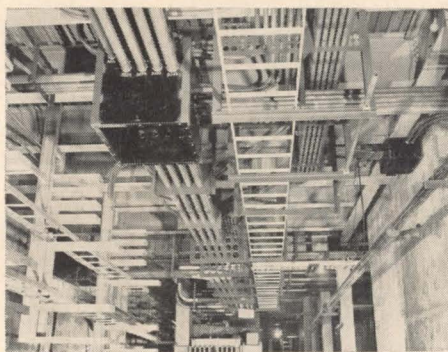


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Fine elevators since 1861



measurements and angle cuts for each pipe size and insulation thickness. Metal-On is a pre-jacketed insulation system prefabricated for application in one step. Johns-Manville, Insulation Div., 22 E. 40 St., New York 16, N.Y.
On Free Data Card, Circle 108



Biggest Installation for "Color-Coded" Conduit

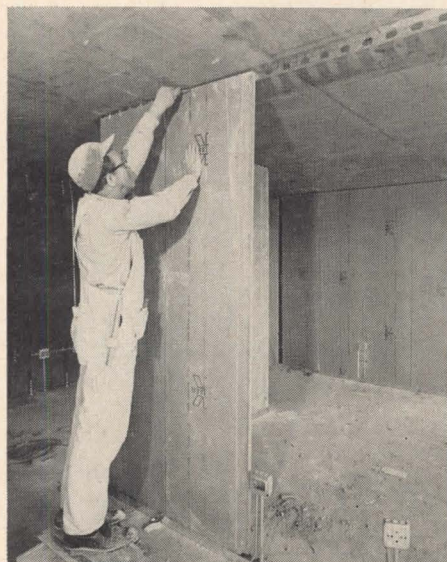
For the automated strip mill of Great Lakes Steel Corporation in River Rouge, Mich., 1,500,000 lb of red "Color-Coded" conduit was used to distinguish it from pipe used for other purposes. The red conduit ranged in size from $\frac{3}{4}$ " to 4". In applying the color to the conduit, National Electric galvanizes rigid steel conduit by its "Sherardizing" process, in which zinc is alloyed to the conduit and threaded ends. The conduit is then immersed in a bath of corrosion-resistant MVC-1 Poly-Vinyl, to which color pigments have been added, then moved slowly through ovens to obtain a dry, hard finish. Corrosion protection is increased by the fact that both inside and outside walls are coated. H.K. Porter Co., Inc., National Electric Div., Porter Bldg., Pittsburgh, Pa.

On Free Data Card, Circle 109

New Plaster-Wall System

New solid-plaster partition system eliminates need for temporary bracing of installed lath and provides a sturdy plaster base which permits scratch and

double-back operations on both sides of the partition the same day. "Kaiser-PLASTER-Wall" can be erected either as a 2" partition (1-hour fire rating) or a 2½" partition (2-hour fire rating). No new tools or techniques are required for the simple installation; the 1"-thick interlocking V-edge gypsum lath is secured at the top by lock tabs on the metal ceiling runners, at the bottom by the self-locking metal floor runners. Party walls are easily built by installing

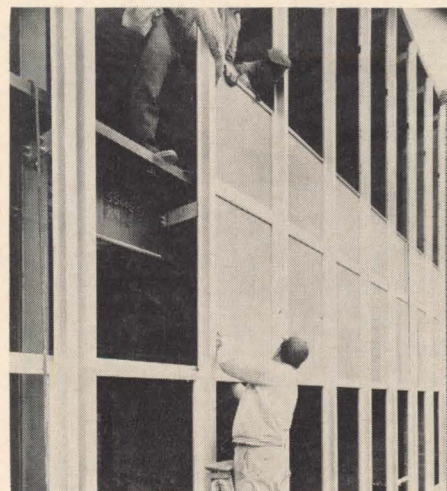


twin sets of runners 2" apart for a finished double partition 5" thick. Kaiser Gypsum Co., 300 Lakeside Dr., Oakland 12, Calif.

On Free Data Card, Circle 110

New Foam Insulation Reduces Panel Thickness

The insulating effectiveness of new "Foamthane" has reduced the total thickness of prefabricated wall panels by one-half in a recent curtain-wall building. The new insulator is a poly-



urethane foam, with a K factor of .15 at 70 F, making possible a core only $\frac{3}{4}$ " thick, compared to 1½" thickness customary with fibrous glass or polystyrene foam. In addition, Foamthane can be laminated with neoprene contact adhesives (unlike fibrous glass, which is not rigid and must be tack-glued in assembled panels, for an additional cost of 20%). Total thickness of the panels is approximately 1", bringing about subsequent savings in frames and mullions. The building shown is a research headquarters for Sylvania Electronics (Division of General Telephone & Electronics Corp.) in Waltham, Mass., by Paul Van Wert of Sylvania and Henry Frost of Cabot, Cabot & Forbes Associates; curtain-wall designer and manufacturer was Michael Flynn Manufacturing Co.; fabricator of the porcelainized-steel panels was Seaporcel Metals, Inc. Pittsburgh Corning Corp., 1 Gateway Center, Pittsburgh 22, Pa.

On Free Data Card, Circle 111

Aluminum Panels Form Walls and Roof

Unusual home utilizes 4½ tons of Reynolds aluminum, most of which is in colorful "Brauer Structural Aluminum Panel" for walls and roof. The special accordion-like shape of the panels offers great structural strength; in addition, the low-cost



aluminum panels minimize air-conditioning and heating costs, and require little maintenance. The system resists 125-mph winds.

Wall is easily assembled in flat position, at or near site, bolting aluminum trim to top and bottom of panels that have been precut to exact length. Walls are erected on foundation on preinstalled anchor bolts (average weight of 8' x 30' wall is 220 lbs). Roof panels, continuous in length, are then laid in place and bolted. For interior finish of walls, vertical strips are fastened to top and bottom trim, followed by horizontal furring strips. Manufacturer states that "volume-

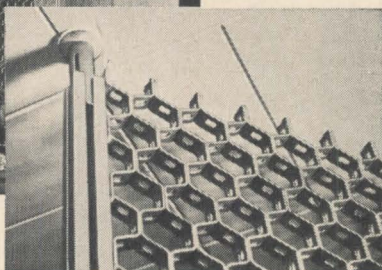
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Panels of Irvico "Aluminum Gridsteel" 8'0" high, 3'0" wide in modern furniture showroom.



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- ★ without leaving marred surfaces.

Irvico introduces the "UNIPOLE" Modular System to satisfy the growing popularity of open grille work for functional and decorative use by architects and interior designers.

The system saves time and cost in installation. It can be erected by anyone with a screwdriver and tape measure.

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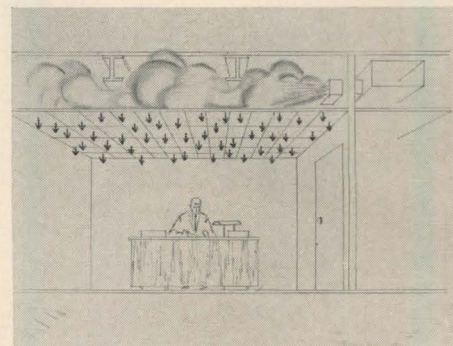
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For more information, turn to Reader Service card, circle No. 391

building techniques are applicable, but nothing prevents the construction of individual buildings economically." Brauer Engineering Co., P. O. Box 727, Ingleside, Texas.

On Free Data Card, Circle 112



Acoustical Ceiling Also Ventilates

Unique air-diffusion system, employing a new type of ventilating acoustical ceiling, improves air-conditioning efficiency while it reduces construction costs. Conditioned air flows directly and evenly into the room—without drafts or stagnant spots—through thousands of tiny perforations in the ceiling material itself. Among the construction advantages: conventional diffusers are eliminated, amount of ductwork is reduced, and plenum space can be shallower than in conventional installations. Ventilating perforations cannot be distinguished in the installed ceiling, which doubles as an attractive sound-absorbent interior finish. The system is available in five types of Armstrong acoustical products. Armstrong Cork Co., Lancaster, Pa.

On Free Data Card, Circle 113

Shingles Sealed by Adhesive and Sun's Heat

Self-sealing roofing shingles developed by The Philip Carey Manufacturing Company have a factory-applied thermoplastic adhesive that sets in the heat of the sun. The shingles are prevented from sticking together in the package by protective tape. Application is neater with no shingles spoiled by smeared adhesive, and faster with no turning or reversing required. Suitable both for re-roofing and new construction, the 3-tab "Sol-Seal" shingles are 12" x 36" and come in various colors. The Philip Carey Manufacturing Co., 320 S. Wayne Ave., Cincinnati 15, Ohio.

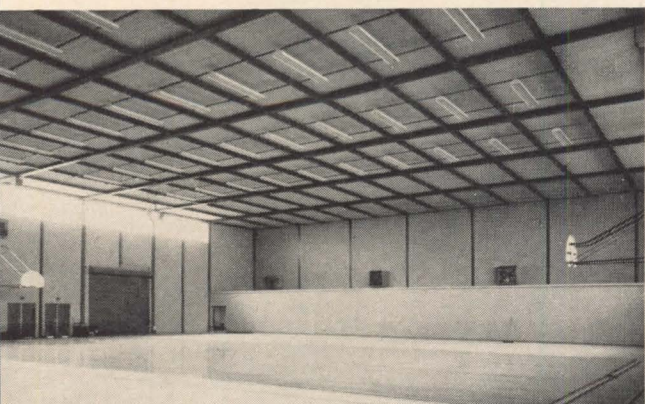
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40% LESS DEAD LOAD with TECTUM ROOF DECKS



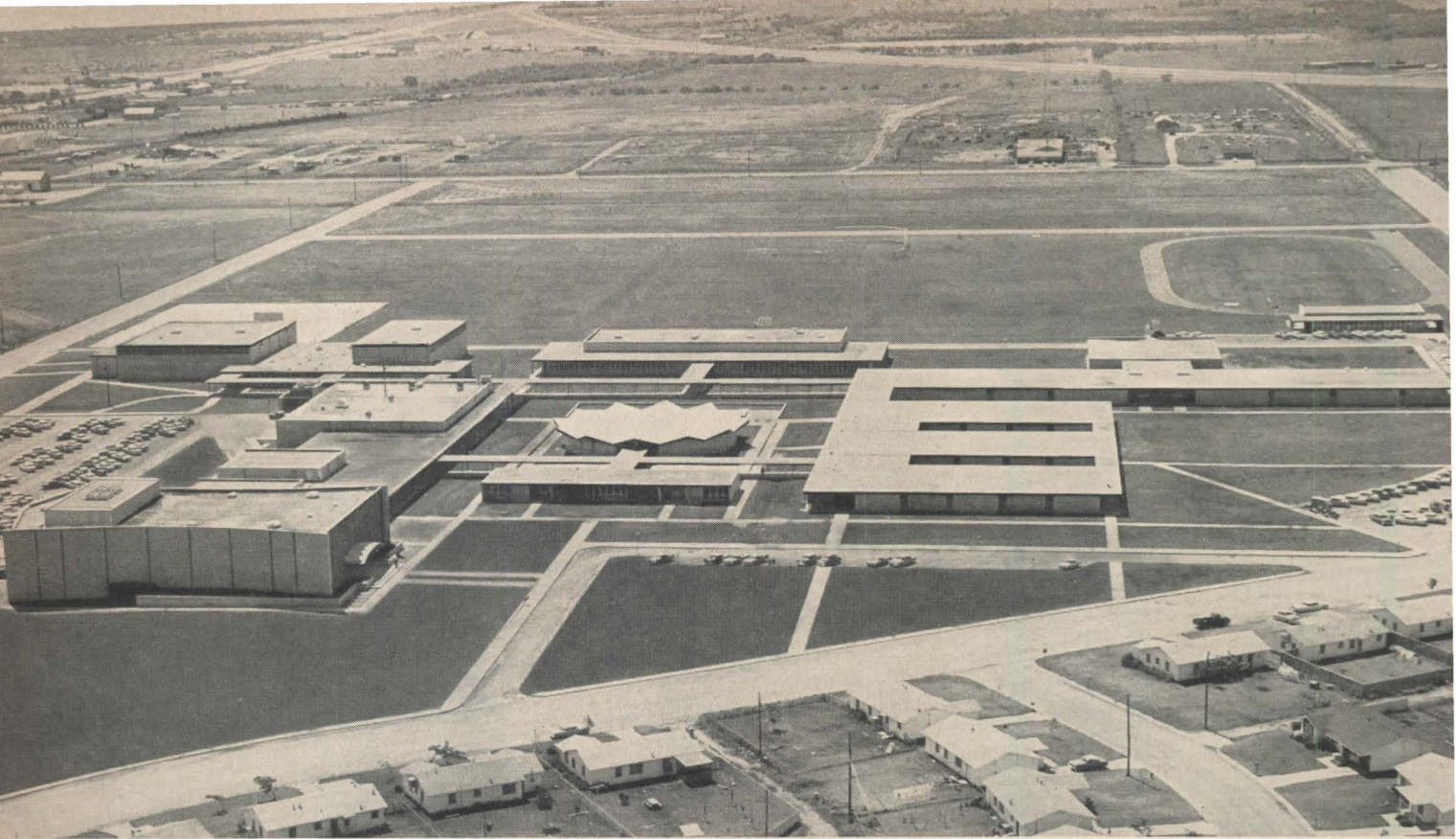
If you are considering an insulating-acoustical wood fiber roof deck, did you know that Tectum saves at least 40% of the total roof deck weight? On a building of 100,000 square feet this is the equivalent of nearly 200 tons reduction in dead load on framing, load bearing walls and foundation. Translate this into possible steel savings, shipping and erection costs or improved safety factors and you'll appreciate how much Tectum contributes toward building economies.

An independent research laboratory recently tested Tectum and two other similar wood fiber roof deck materials for an architect client. Tectum's sample weighed 5.4 psf; Type A, 9.2 psf; Type B, 9.8 psf. Tectum is the only structural wood fiber board that does not use Portland cement as a binder. Thus the weight advantage—as well as several other features you'll want to consider. For complete information see your Tectum representative or write Tectum Corporation, 535 East Broad Street, Columbus 15, Ohio.



The new Savannah, Georgia Armory, illustrated, is an excellent example of utilizing Tectum's lighter weight to improve safety factors. The armory, built on an unfavorable soil condition, makes use of a rigid steel frame, concrete block walls and Tectum roof deck. The frame carries the weight. Walls act only as screens. **Architects:** Thomas, Driscoll, Hutton, Savannah, Ga. **General Contractor:** Hugh Jackson, Savannah, Ga.

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big school with a big future

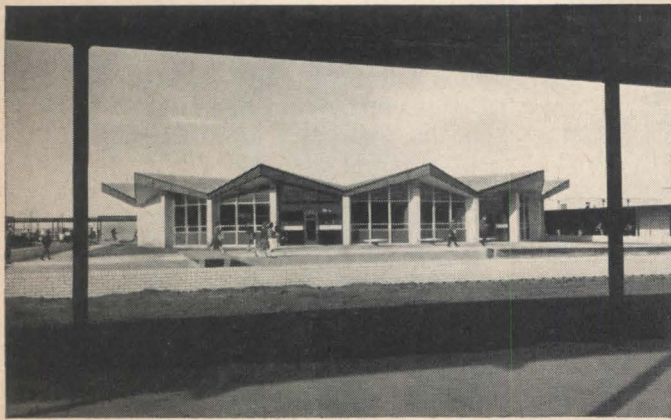
The new Cooper High School in Abilene, Texas, is an ultramodern complex of structures that lives up to Texas billing—not only in size but in scope of vision in planning. Equally impressive is the enduring quality of its construction! ¶ Designed to accommodate 2200 students, this massive \$2,700,000 educational project on a 46-acre site covers a total floor space of 219,000 square feet, including covered walkways. The campus-type layout with its nine interconnecting buildings is zoned into three classifications—a quiet study area, activity or noisy areas, and areas used by both students and the public. ¶ Construction of this big school was done in four separate contracts. Lone Star Masonry Cement—a uniform, ready-to-use material, scientifically formulated to provide maximum workability, permanence and economy—was used throughout the entire project. Lone Star Portland Cement was used for foundations and floors and Lone Star Air-Entraining Cement was used for all the “Featherlite” light weight concrete blocks.

ARCHITECTS & ENGINEERS: Tittle & Luther, Boone & Pope, David S. Castle. **STRUCTURAL ENGINEER:** Jerry Rosser. **GENERAL CONTRACTORS:** Rose Construction Company, Shiflet Bros., White & Everett Construction Company, C. B. Oates. **MASONRY CONTRACTOR FOR WAREHOUSE:** Thurman Head. **LONE STAR MASONRY DEALERS:** C-C Building Supply, Pecan Grove Lumber & Supply Company, Bowman Lumber Company, Harber-Patterson Lumber Company, South Texas Lumber Company. **READY-MIX CONCRETE:** Childs Ready-Mix Concrete Company. **CONCRETE BLOCKS:** Texas Concrete Block Company. **ALL OF ABILENE, TEXAS.**



⬆ Here's where Lone Star Masonry Cement pays off. A uniform, ready-to-use material, it spreads easily and stays plastic long enough for masons to bed units properly in long rows.

⬆ Hub of the Cooper High School is the circular library, which serves as a “buffer zone” between the activity area and the study area.



Lone Star Masonry Cement

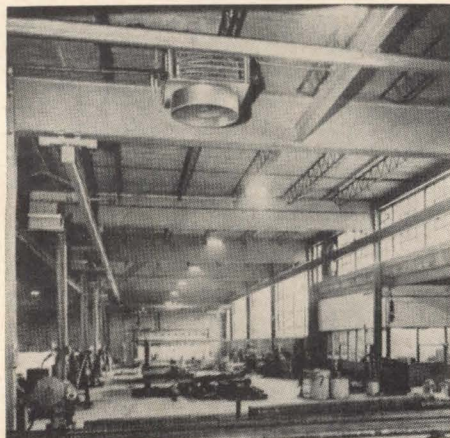


LONE STAR CEMENT CORPORATION
100 PARK AVE., NEW YORK 17, N.Y.

AIR/TEMPERATURE

4-Way Unit Heaters with New Flexibility

New catalog on unit heaters for steam and hot-water systems is available. Of particular interest is the improved design of Carrier's 4-way unit heaters, with new air-diffusion patterns that are unique in the heating industry. These 4-way heaters can vary the velocity, range, and direction of heat



by simple adjustments, giving a flexibility that is particularly useful for long narrow buildings or for inaccessible areas. Other models described are horizontal-flow and vertical-flow. Complete dimensional and technical data is provided in the 20-page catalog. Carrier Corp., Carrier Parkway, Syracuse 1, N.Y.

On Free Data Card, Circle 200

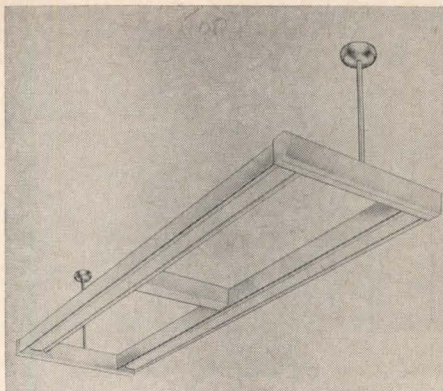
Make-Up Air Systems

Catalog on make-up air systems depicts six types of "Sun-Flo" direct gas-fired units, in a total of more than 40 models. Capacities range from 5000 cfm with 750,000 Btu/hr to 150,000 cfm with 15,000,000 Btu/hr. Roof-top, ceiling, or wall mounting is available. Photos of the units appear in the 16-page catalog, along with construction diagrams and data tables. Metals Engineering and Manufacturing Co., Inc., 8824 Lyndon, Detroit 38, Mich.

On Free Data Card, Circle 201

Air-Handling Troffers

Brochure, 20 pages, discusses combination air-handling troffers. Sylvania's "Sylva-Flo" troffers with "Multi-Vent" mechanism provide maximum operating performance with economy for both lighting and air conditioning.



Illustrations and specifications are presented, as well as charts giving photometric and air-distribution data. Sylvania Electric Products Inc., One 48 St., Wheeling, W. Va.

On Free Data Card, Circle 202

CONSTRUCTION

Porcelain-Enamel Panels to Suit Architect's Need

"Calcore" panels—consisting of a face of porcelain-enameled steel, a core of various insulating materials, and a metal backup sheet or pan—are presented in 8-page booklet. Full-color photos show typical applications of the panels for a number of building types, and cross-sectional drawings detail the 16 basic panel types. Size, shape, color, texture, and other properties can be suited to the architect's need. Caloric Corp., Architectural Porcelain Div., Topton, Pa.

On Free Data Card, Circle 203

Framing Anchors

New 4-page folder presents design and technical information on "Trip-L-Grip" framing anchors. Illustrated in detail are 10 applications where TECO anchors can be used for stronger, more efficient construction in floor, wall, roof, and ceiling framing. Table of safe working values is included. Timber Engineering Co., 1319 18th St. N. W., Washington 6, D.C.

On Free Data Card, Circle 204

Data on Metal Lath and Steel Channels

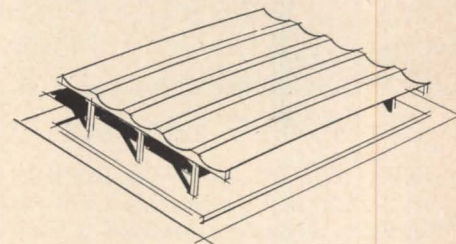
A complete line of metal lath, including two new designs, is shown in new 16-page catalog, *Bostwick Metal Lath and Accessories*. Reference booklet contains spacing data for wall and ceiling supports, basic data for con-

struction of hollow nonbearing partitions, dimensions and properties of metal-lathed steel studs, safety and sound-insulation data. Architectural details are provided. The Bostwick Steel Lath Co., 20 Heaton Ave., Niles, Ohio.

On Free Data Card, Circle 205

Concrete HP Shells

Silberkuhl pretensioned and precast HP roof shells, invented in Germany, are now available in the U.S. Folder, 6 pages, shows the economy that results from each stage of their construction process; it also outlines properties

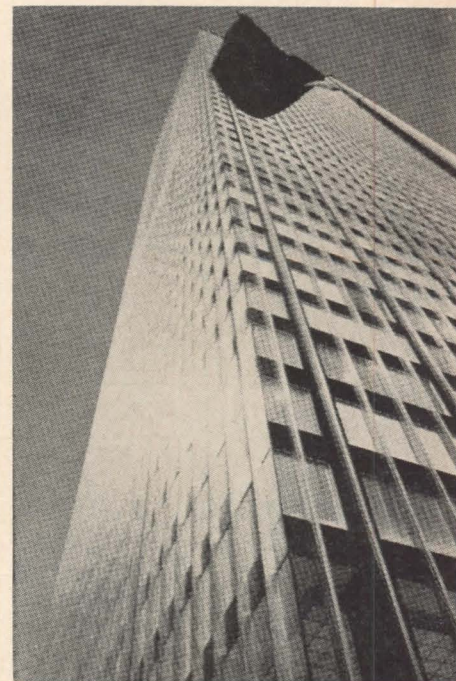


of the shells—standard 8' chord width, up to 75' spans, thickness as little as 2½". Diagrams suggest design possibilities for medium-span roof construction. Silberkuhl Construction Systems, Inc., 5353 Lancaster Ave., Philadelphia 31, Pa.

On Free Data Card, Circle 206

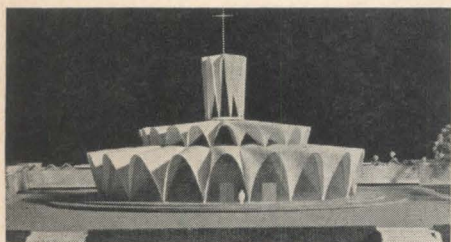
Steel Curtain Walls

Curtain Walls of Steel, 52 pages, gives basic and comprehensive information on steel curtain walls: their unique properties and advantages, their suit-



ability to modern building concepts, and the finishes and details that are possible with stainless and porcelain-enameled steel. A special section presents some recent buildings of steel curtain-wall construction, and includes color photographs and details. United States Steel Corp., Room 6412, 525 William Penn Place, Pittsburgh 30, Pa.

On Free Data Card, Circle 207



Series on Elastomers

Building with Elastomers is the title of new quarterly publication from du Pont. First issue features fluid-applied roofing of neoprene and "Hypalon" synthetic rubber, a development giving exceptional freedom of design and color in roof constructions. Folder shows examples, presents technical properties and practical considerations. Second issue, also 4 pages, discusses preformed glazing and panel gaskets, giving a brief introduction to the subject of zipper gaskets. Future issues will discuss other resilient, rubber-like materials and their uses in construction. Elastomer Chemicals Dept., E.I. du Pont de Nemours & Co., Inc., Wilmington 98, Del.

On Free Data Card, Circle 208

Rafter Calculator

Exact lengths of common rafters, hip and valley rafters are obtained in an instant with new "Plumas Rafter Calculator." Pitch is easily set, then span of rafter is read in the window of the slide rule. Device is billed as a handy tool for the "building, engineering, and designing professions." Price & Rutzebeck, P.O. Box 30, Hayward, Calif.

On Free Data Card, Circle 209

DOORS/WINDOWS

The Latest in Folding Partitions

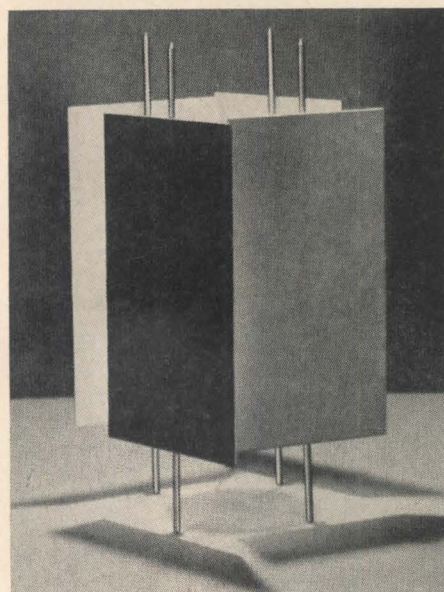
Catalog of folding partitions, 20 pages, presents the complete "Modernfold" line. Of special interest is the new double-hinge construction (on "Span-



master" and "Soundmaster 120" designs) that provides the strength for 27'-high partitions—fully 5' above the former industry maximum. On the recently introduced "Soundmaster 240," which claims better noise reduction than many types of permanent walls commonly used in commercial and institutional buildings, there is an important new ASTM standard for rating sound-transmission loss. Newest Modernfold design is the "Woodmaster" partition, with hollow core for lighter weight and quieter operation. Installation details, and all necessary data, are provided. New Castle Products, Inc., Box 353, New Castle, Ind.

On Free Data Card, Circle 210

ELECTRICAL EQUIPMENT



Contract Lamps Allow Many Variations

New Heifetz Design Gallery Lamp Catalog B, 32 pages, is available to the interior designer and contract planner. A new collection of lamps and accessories is presented, with full information on materials and dimensions. The company states that its "unusual self-sufficiency as a manufacturing source" allows many devia-

tions in design from the items shown. Write to: The Heifetz Co., Clinton, Conn.

Newest Fixtures

Newest lines of commercial-industrial lighting fixtures are featured in *Designs for 1962*, 24-page illustrated booklet. The most popular of Day-Brite's fluorescent and incandescent fixtures for these uses are grouped by categories—recessed, surface-mounted, and suspension-mounted. Catalog contains descriptions of the fixtures, installation data, and application suggestions. Included are several recent developments by Day-Brite: the surface-mounted "Tiara" fixture, and the "WaffleTex" plastic enclosure for recessed-ceiling systems. Day-Brite Lighting, Inc., 6260 N. Broadway, St. Louis 15, Mo.

On Free Data Card, Circle 211

Illuminated Ceiling with Acoustical Panel

"Sky-Glo" illuminated ceilings, described as the "fastest installing on the market," are detailed in new *Bulletin B*. The system is based on 2' x 4' and 2' x 2' diffusers of vinyl, polystyrene, and acrylic, also 1/2" cube louvers of aluminum or plastic. Featured is a new perforated acoustical panel. A unique ordering formula allows the entire ceiling to be specified and priced on a square-foot basis, complete with diffuser, suspension, and lighting. Benjamin Div., Thomas Industries Inc., 207 E. Broadway, Louisville 2, Ky.

On Free Data Card, Circle 212

FINISHERS/PROTECTORS

Treatment for Exterior Redwood

Although redwood is one of nature's most durable materials and requires no finish coating for protection, there is often the desire to enhance, modify, or change its natural appearance, states new 8-page booklet. *Redwood Exterior Finishes* discusses natural finishes (which do not conceal redwood's grain and texture), stains (which tend to obscure the character of the wood and to change its color), and paints (which make possible special color effects). Also discussed are finish problems, how to avoid them

Continued on page 94

IT'S WHAT YOU CAN'T SEE

WHEN YOU SPECIFY FLOOR TREATMENTS you demand visible proof of performance—approvals, recommendations by Flooring Manufacturers, Contractors and their Associations—U/L proof of liability protection—and field service by manufacturer's representatives.

For over half a century the invisible ingredient—Hillyard experience—has created highest performance standards. Endless research in techniques of manufacture, researching raw materials, finalizing formulations, timely raw material buying in world markets, continual testing and precise laboratory controls guarantee you uniform high quality products.

The first trademark-registered drum design in our industry—the blue and white

checkerboard container—for generations has protected users with the promise—"You Know it's Right if it Comes in the Checkerboard Drum."

The final step—service in the field. Over 170 Hillyard trained "Maintainers" serve as architect consultants and job captains—work with owners to prescribe maintenance—train the custodian. There's one near you—"On Your Staff—Not Your Payroll."

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Newest idea in
space utilization:

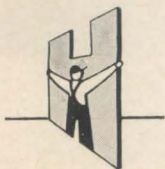
HAUSERMAN OPERABLE WALL

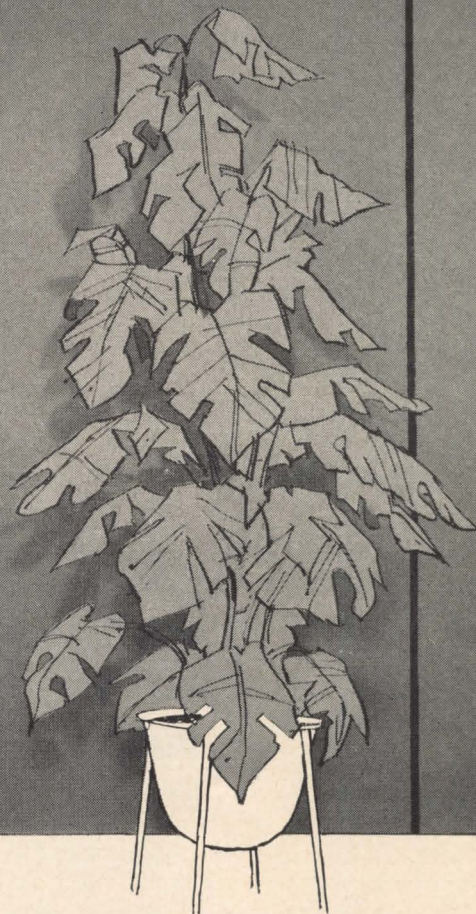
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that multiplies space usefulness...
and it's **Hausermanaged***



When you want to throw two or more rooms together, Hauserman OPERABLE WALL rolls away at a touch to inconspicuous storage. And readily rolls back to become a *flat*, sound-damping, permanent-looking space divider. Sealed completely at wall perimeter and at panel joints to eliminate sound leaks. Full range of easily washable Hauserman-handsome decorator colors and finishes.

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Company _____

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MOVABLE INTERIOR WALLS BY HAUSERMAN

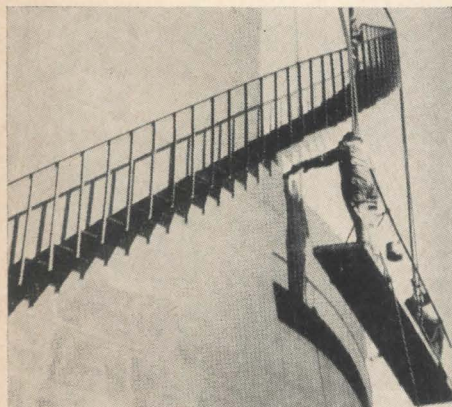
The E. F. Hauserman Company • 7602 Grant Avenue, Cleveland 5, Ohio • Offices in 19 Leading Cities and Hauserman Ltd., Toronto, Ont.

For more information, turn to Reader Service card, circle No. 335



and what to do if they occur. A list of brand-name products approved by the CRA is included. California Redwood Assn., 576 Sacramento St., San Francisco 11, Calif.

On Free Data Card, Circle 213



Qualities and Uses of Urethane Coatings

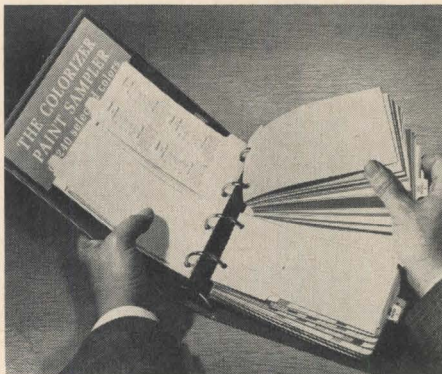
New brochure, 4 pages, describes the outstanding protective qualities of "BFC Urethane Coatings": their superior resistance to chemicals, corrosion, weather, and wear. The chemical reaction by which the coatings cure to a tough, resilient film is clearly explained. A comprehensive table lists the resistance of the cured coatings to a wide range of chemicals. Brochure also gives typical uses, specification data, and application recommendations. Better Finishes & Coatings, Inc., 268 Doremus Ave., Newark 5, N. J.

On Free Data Card, Circle 214

Special Paint Sampler for Architects

New paint sampler, especially designed for architects, has been developed by Colorizer Paints. It comprises 240 colors selected by Faber Birren. The colors are grouped in families—off-whites, warm pastels, warm muteds, cool pastels, etc.—and each color sheet is perforated so that a

part of the sheet may be removed and attached to specs. Formula for making each color is printed on back of



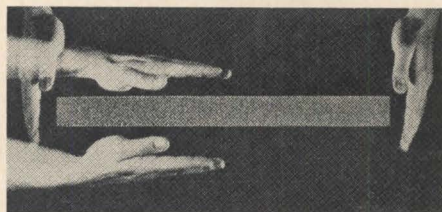
each perforated section. Colorizer Associates, P.O. Box 1322, Salt Lake City, Utah.

On Free Data Card, Circle 215

INSULATION

Characteristics and Uses of Cellular Glass

"Foamglas" all-glass thermal insulation is made by expanding molten glass 15 times to form millions of tiny closed cells, giving it an unusual combination of characteristics. It is



waterproof, vaporproof, incombustible, has high compressive strength and dimensional stability. Its two forms—either flat rigid block or new "Foamglas-Board"—are detailed in new 20-page catalog. Publication describes a variety of applications for the insulation: flat roofs, pitched roofs, ceilings, perimeters, curtain walls, and masonry walls. Photos and construction details, plus insulation values and other technical data, are included. Pittsburgh Corning Corp., 1 Gateway Center, Pittsburgh 22, Pa.

On Free Data Card, Circle 216

Complete Line of Insulating Products

New catalog on structural insulating board, acoustical, roof deck, and hard-board products is now available. Fully

illustrated, the 28-page catalog contains technical information, specifications, and application details of Simpson's complete line of these products. Simpson Timber Co., 2041 Washington Bldg., Seattle 1, Wash.

On Free Data Card, Circle 217

Rating Program for Fiberboard Sheathing

How to Save with the Sheathing That Insulates, 8 pages, describes the new IBI rating program for fiberboard sheathing, and tells how the product gives significant cost reductions for new homes. The bulletin states that



"fiberboard sheathing does everything other sheathings will do—PLUS it insulates." Among fiberboard's cost-cutting advantages are its insulating quality, easier handling, light weight, better workability, and faster coverage. Insulation Board Institute, 111 West Washington St., Chicago 2, Ill.

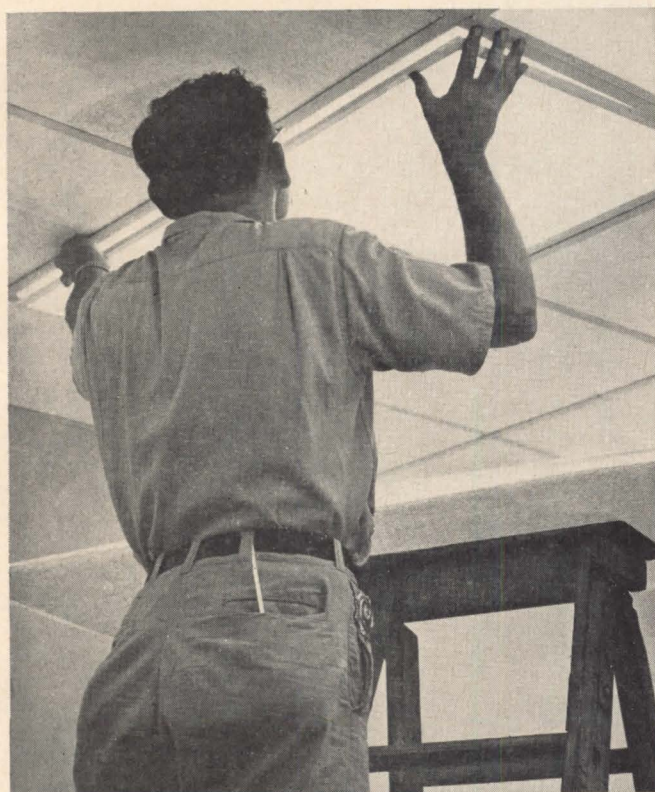
On Free Data Card, Circle 218



Structural Insulation

New Dimensions in Ceiling Design, 20 pages, discusses "Insulite," the four-in-one product that is structural roof decking, effective insulation, vapor barrier, and prefinished interior ceiling. Booklet illustrates the product's properties, and its economy over other types of roof-and-ceiling construction. Construction details and application

New findings verify benefits of Fiberglas Polarizing Light Panels



Fiberglas Polarizing Light Panels are lightweight, easy to handle, and easy to install. They are dimensionally stable and are available in sizes up to 24" x 48".

Recent tests conducted by Dr. Blackwell of Ohio State University, and reported before the National Technical Conference of the Illuminating Engineering Society, proved that polarization:

- Virtually eliminates reflected and direct glare
- Reduces veiling glare substantially
- Improves color definition dramatically
- Improves visual performance and task visibility to a startling extent over nonpolarized light at equal candle power.

These findings demonstrate that polarization can increase the usefulness of light without increasing foot-candle power. Polarization converts ordinary lighting energy into energy that actually increases task contrasts and, as a result, improves visual performance.

Although the precise measurement is new, Fiberglas Polarizing Light Panels have been providing such benefits for two years in buildings throughout the United States. When you specify light fixtures, make sure they contain Fiberglas* Polarizing Light Panels to provide the advantages of this new dimension in lighting.

WRITE FOR NEW LITERATURE TODAY. The address is: Owens-Corning Fiberglas Corporation, Dept. MD, 717 Fifth Ave., New York 22, N. Y.

OWENS-CORNING RESEARCH pioneers new ideas in



*T.M. (Reg. U.S. Pat. Off.) O.C.F. Corp.



DESIGN FLOOR MAINTENANCE INTO THE BUILDING!

"the
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STOPS WALK-IN DIRT!

Here's a mechanical floor mat that works automatically—scrubs dirt and moisture from shoes — stops walk-in dirt at the door. Time tested Miracle Mat has been used by architects and building owners in

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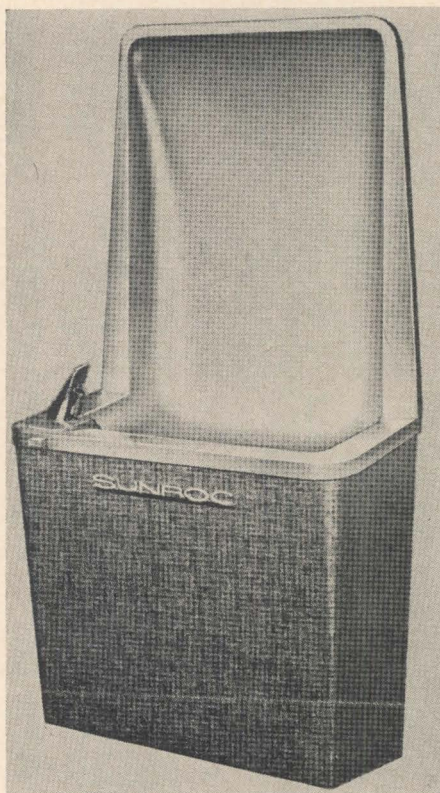
PROGRESSIVE ENGINEERING CO.
HOLLAND, MICHIGAN

For more information, circle No. 403

information for the roof deck are also presented. Insulite Div., Minnesota's & Ontario Paper Co., 500 Baker Arcade Bldg., Minneapolis 2, Minn.

On Free Data Card, Circle 219

SANITATION/PLUMBING



Convertible Fountains

Recently introduced drinking fountains, which are readily converted at any time to supply refrigerated water, are illustrated in 4-page brochure. These "Sunroc SR" fountains are designed in all stainless steel, or with a vinyl-clad apron that fits over the compact cooling unit. Brochure provides specifications and roughing-in data. Sunroc Corp., Div. SR, Glen Riddle, Pa.

On Free Data Card, Circle 220

Wall-Closet Support Is Above the Slab

The first wall-closet supporting system that makes possible up to 19 off-the-floor closets in a horizontal battery on a single vertical stack—without impairing the structural slabs—is described in 12-page manual. Drawings show how the new "Monolithic" system supports long-run batteries of siphon-jet closets without resorting to costly modifications or redesign of

floor slabs. Manual enables designers to select quickly and easily the particular system that accommodates the type and number of closets required. Hydromechanics Div., Zurn Industries, Inc., Landers Bldg., 2214 West 8th St., Erie, Pa.

On Free Data Card, Circle 221

SPECIAL EQUIPMENT

Glass-Fiber Panels by U.S. Plywood

Newest addition to U.S. Plywood's extensive line of building materials is "Weldwood Fiberglass Paneling," presented in 20-page bulletin. The new panels come in three grades: superior, structural and economy. The two upper grades are not only a superior product, manufacturer states, but are also priced competitively with other polyester paneling of the same weight and are priced lower than comparable acrylic panels. Brochure gives technical details, and shows many applications: room dividers, carports, shower stalls, skylights, and breezeways. United States Plywood Corp., 55 West 44 St., New York 36, N.Y.

On Free Data Card, Circle 222

Building Security

Three product-information sheets on security systems explain their operation, component parts, and typical installations. "Taut Wire Detection System" sounds an alarm whenever an intruder disturbs the wire, thus stopping intruders at point of entry. "Secret Sentry" is activated whenever there is movement in a protected area or near protected equipment. "Audio Detection System" resembles a long-range "ear" listening in on an area, sounding an alarm whenever it hears an unusual sound. (Detectors in this third system also double as microphones for intercom use.) Commercial Div., Minneapolis-Honeywell Regulator Co., 2753 Fourth Ave. S., Minneapolis 8, Minn.

On Free Data Card, Circle 223

Table of Many Functions

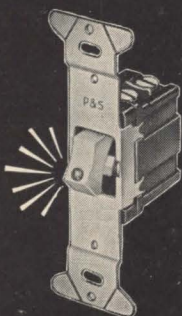
Brochure, 4 pages, presents new CHF adjustable-height tables, which convert in 15 seconds to any height from 18" to 29". In homes, the multifunction tables serve as card table, coffee table, child's table, or dining table; in motel-hotel rooms they offer several guest services in a single piece of

NOW!

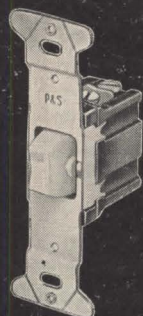
3 NEW P&S ROCKER-GLO SWITCHES!



No. 2211-SL
No. 2211-SL also
available in strap
type No. 2221-SL



No. 2221-SP
No. 2221-SP also
available in Despard
(interchangeable)
type No. 2211-SP



No. 2225-S
No. 2225-S also
available in Despard
(interchangeable)
type No. 2215-S

1

LIGHTED HANDLE ROCKER-GLO

Pinpoints switch location in darkened rooms or hallways. Tiny, long-life neon lamp softly glows in OFF position only. Single pole or three-way. Rating: 15 Amperes, 120 Volts, A.C.

2

PILOT LIGHT HANDLE ROCKER-GLO

Instantly shows when appliances or lights are on. Tiny red plastic jewel in rocker button lights in ON position only. Single pole only. Rating: 15 Amperes, 120 Volts, A.C.

3

REMOTE CONTROL ROCKER-GLO

Momentary contact, center "off" switch. Designed especially for low voltage remote control applications — controlling large banks of lighting, operating stage curtains, etc. Single pole, double throw. Rating: 10 Amperes, 48 Volts, A.C.

For more information write Dept. PA162



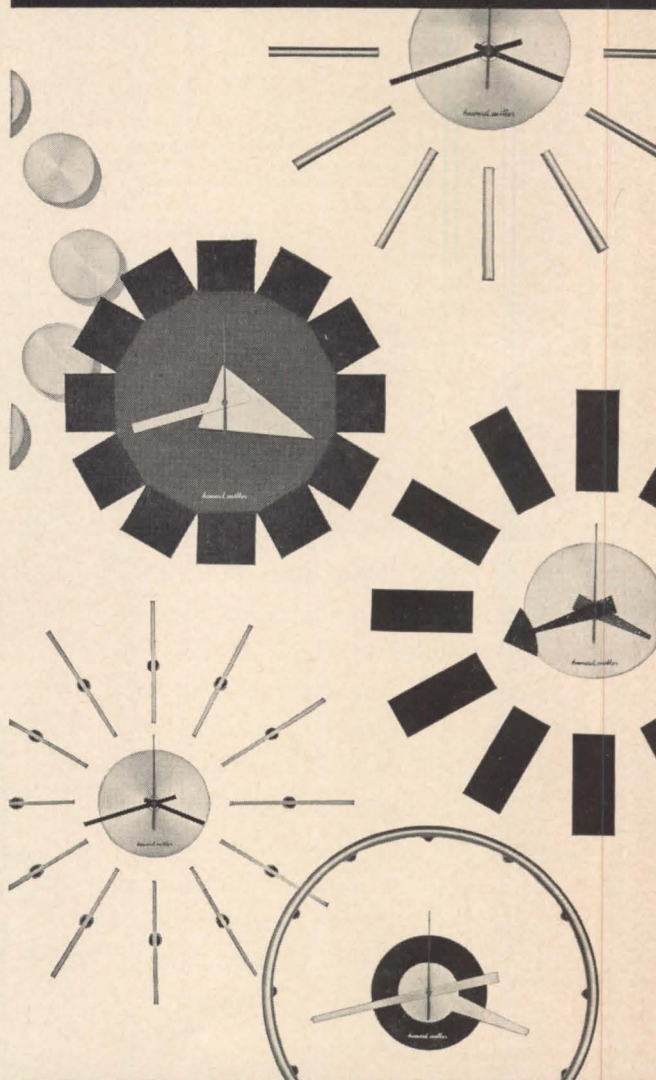
PASS & SEYMOUR, INC.
SYRACUSE 9, NEW YORK

For more information, turn to Reader Service card, circle No. 380



HOWARD MILLER

BUILT-IN CLOCKS
DESIGNED BY GEORGE NELSON



Each of these six new built-in clocks features distinctive and dimensional hour markers. The Howard Miller built-in clock line offers a wide selection of hour markers and finishes in sizes from 9" to 36" affording maximum design freedom. Custom clocks also manufactured to your specifications.

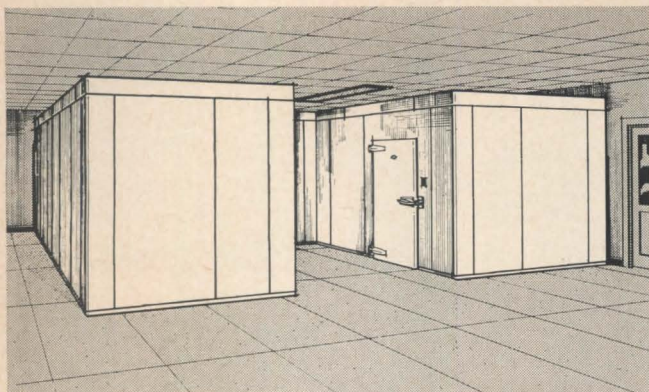


For descriptive literature, write:

HOWARD MILLER CLOCK CO.

BUILT-IN DIVISION / ZEELAND, MICHIGAN

For more information, turn to Reader Service card, circle No. 345



Installation in the Suburban Country Club, Baltimore, Md. Specifications prepared by Henry Adams, Inc., Consulting Engineers, 2315 St. Paul Street, Baltimore, Maryland.

Bally pre-fab walk-ins *all-metal coolers and freezers*

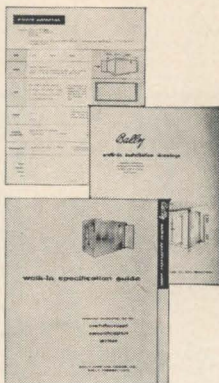
Sectional construction! Expandable any time! Costs less than built-ins!*

Newest concept in refrigeration storage makes construction of "built-ins" on the job obsolete. Precision made pre-fab sections permit installation anywhere, any size, any shape. Easy to increase in size or disassemble for relocation. Aluminum or galvanized steel are standard finishes. Stainless Steel and acid-resistant Porcelain also available. All finishes remain sanitary . . . odor-free . . . rodent and vermin proof.

Free architect's fact file...

Includes guide for specification writers . . . 16-page Walk-In book . . . portfolio of 48 installation drawings and specifications. Also included is a Walk-In description form to request plans and specifications from Bally engineers for individual installations. Write on your company letterhead to Department PA.

See Sweet's File section 26a/Ba.



*Based on cost scales in Metropolitan areas.



Bally Case and Cooler, Inc.
Bally, Pennsylvania

For more information, turn to Reader Service card, circle No. 325



Mount directly on any wall—shelves adjustable for height on permanently fixed columns to accommodate any age group 3'2" and 4'2" long. Units fit in anywhere or interlock to make continuous racks of any length or desired capacity. Double rails below double hat shelves take coat hooks or coat hangers. Holds wraps spaced apart in orderly, healthful manner, 5-6 hooks or 3-4 coat hangers per running foot.

Fireproof, vermin-proof, strong beyond need. Lifetime construction—welded heavy gauge steel, baked enamel finish.

Matching Overshoe Racks

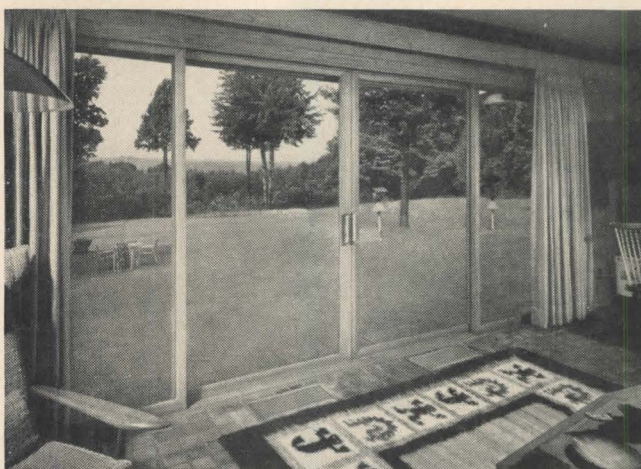
Mount on wall at baseboard—keep overshoes paired, and off the floor.

Write for Schooline Catalog SL-510

VOGEL-PETERSON COMPANY

RT. 83 AND MADISON ST. • ELMHURST, ILL.

For more information, turn to Reader Service card, circle No. 384



ARCHITECT: GILBERT SCHOFFER

Wood Frames eliminate condensation



**WOOD SLIDING
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For more information, turn to Reader Service card, circle No. 358



furniture; in restaurants they convert easily from daytime dining to evening cocktails. Four base styles are available, and tops range in size up to 48" round or square. Disassembly requires only 60 seconds, enabling various tops to be interchanged on the same base, and providing for easy storage. The Chicago Hardware Foundry Co., Commonwealth Ave., North Chicago, Ill.

On Free Data Card, Circle 224

Locking Devices

Catalog, 12 pages, illustrates complete line of cam locking devices adaptable to metal, wood, or plastic in panel, drawer, and cabinet installations. Each type is clearly depicted, with detailed dimensional drawing and design application information. Corbin Cabinet Lock Div., The American Hardware Corp., New Britain, Conn.

On Free Data Card, Circle 225

Revival of an Old Art

Murals of Wool, 40 pages, describes tapestry-weaving as it once was practiced (the art of France) and how it has now been restored to the level of major art. Along with the history of the recent renaissance, this handsome booklet reproduces in color many distinguished current works of hand-woven Aubusson tapestries. Write (enclosing \$1.00) to: Lawrence Jeppson Associates, 1747 K St., N.W., Washington 6, D.C.

PROGRESSIVE ARCHITECTURE NEWS REPORT

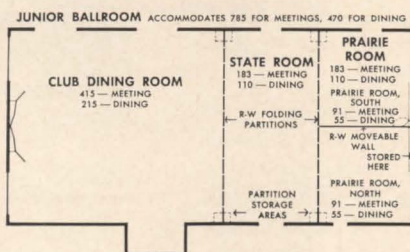
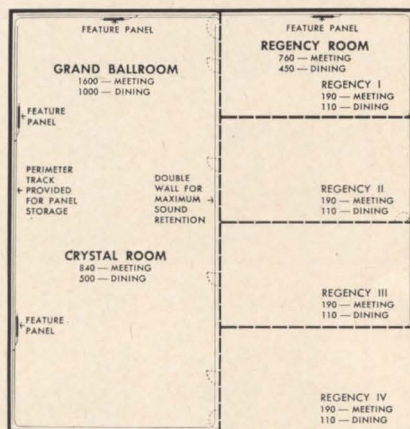
REINHOLD PUBLISHING CORPORATION
430 PARK AVENUE NEW YORK 22, N.Y.
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R-W Movable Walls provide functional interior wall flexibility at the Aurora Hilton Inn



R-W Folding Partitions and R-W Movable Walls installed in the Junior Ballroom of the Hilton Inn, North Aurora, Illinois, permit maximum utilization of floor space to meet everchanging space requirements.



The floor plans, left, show how R-W Folding Partitions and R-W Movable Walls played a major role in providing versatile room flexibility in the Grand Ballroom and Junior Ballroom of the Hilton Inn. This installation graphically illustrates how architectural design incorporating *top-quality, sound-retarding* R-W Folding Partitions provides functional flexibility at its very best.

R-W Folding Partitions are available in a type and size to meet almost any conceivable situation . . . manually or electrically operated . . . finished to meet your decorating scheme . . . quality constructed to assure complete customer satisfaction. For complete information, request Catalog 602.

Architects:
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Orr and Fairbank,
Geneva, Illinois.

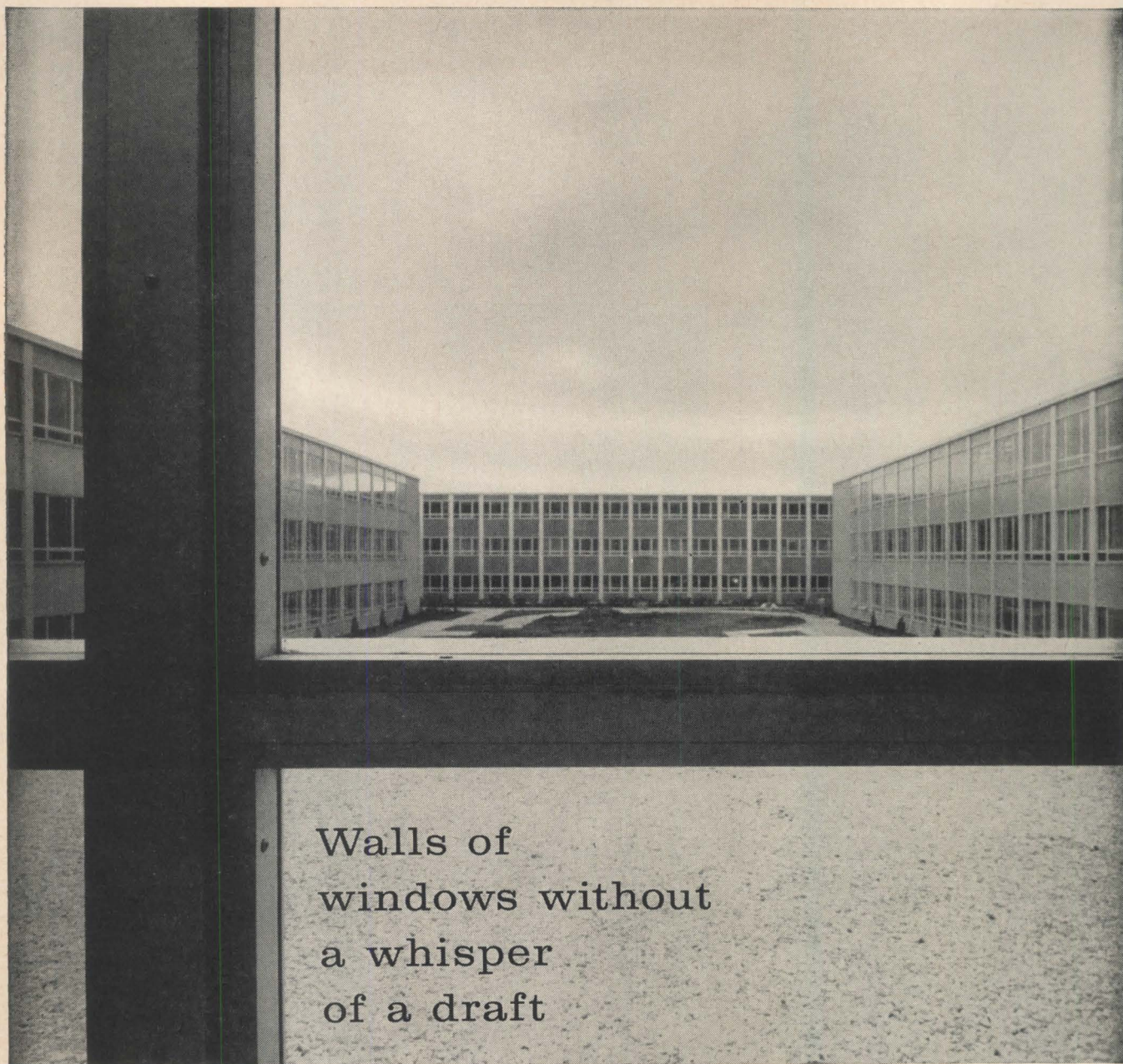


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120 W. THIRD ST., AURORA, ILL. Branches in Principal Cities

For more information, turn to Reader Service card, circle No. 412



Walls of windows without a whisper of a draft

The windows in the new East High School in Rochester, N. Y., were chosen with *winter* in mind.

All projected and hopper ventilating windows contain Schlegel Woven Pile Weatherstripping. Schlegel's dense pile of soft wool fibres adjusts to all uneven surfaces—snugly cushions every window. Its resilience—a property not found in plastic or metal—assures a positive seal.

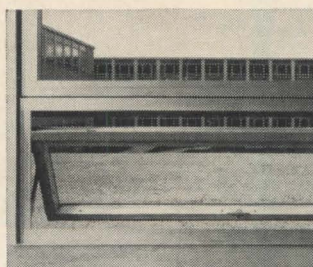
When subzero winds blow up a gale, not one of East High's 2200 students sits in a draft.

Cuts maintenance costs. Here's why you're sure of winter-proof windows when you specify windows with Schlegel Weatherstripping. Schlegel Woven Pile won't rust, crack, or rot. It is designed to last as long as the unit it seals.

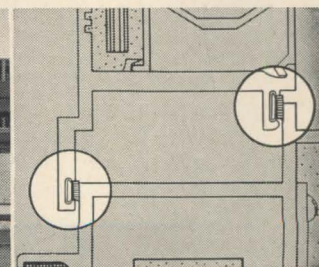
Dow Corning silicone treatment makes it extra water-resistant—locks out howling winds, driving rain, snow, and sleet.

We have much more information about various types of Schlegel Woven Pile Weatherstripping, yours for the asking. And the Schlegel engineering staff is available for consultation on any special weatherstripping applications you may have.

East High School, Rochester, N. Y., anticipates the city's population growth. Built to accommodate 3000 students. Architects: Faragher & Macomber.



All projected and hopper style windows are weatherstripped with Schlegel deep woven pile to insure a positive seal.



Drawing, courtesy of Adams & Westlake, showing application of Schlegel Woven Pile Weatherstripping.

for protection that's **silent, smooth and sure**

Schlegel

WOVEN PILE WEATHERSTRIPPING

Schlegel Mfg. Co., P. O. Box 197, Rochester 1, N. Y. In Canada: Oakville, Ontario

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EDITORIAL FEATURES

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P/A NINTH ANNUAL DESIGN AWARDS

Following the practice of the past several years, this January issue is again devoted to honoring those projects that rose to the top during the course of the design awards judgment. "Awards will be made to architects and their clients," stated the competition program, "for projects now in the design stage to be built in 1962 in the United States. Purpose of the Design Awards Program is to give recognition to good design in the period of design development, rather than after completion, in order to encourage the designers and owners of the projects so honored. Awards will be on the basis of site use, choice of structural system and materials and methods of construction, solution of the client's program, and over-all design excellence."

Members of the jury this year were: Fred Bassetti, Architect, of Bassetti & Morse, Seattle, Washington; Gordon Bunschaft, Architect, of Skidmore, Owings & Merrill, New York, N. Y.; Arthur Drexler, Director of Department of Architecture and Design, Museum of Modern Art, New York, N. Y.; G. Holmes Perkins, Dean, School of Fine Arts, Department of Architecture, University of Pennsylvania and Chairman of Philadelphia's City Planning Commission; Henry A. Pfisterer, Consulting Engineer, New Haven, Connecticut. P/A's earlier announcement of another juror — Eero Saarinen — was tragically voided by death.

Many hundreds of drawings and photographs, outlining a total of 522 projects, faced the jury. To ease their formidable task of evaluation and to allow a fairer comparison of similar projects, design submissions were separated into nine categories: Health (26 projects submitted—1 citation given); Religion (70 projects—1 award); Industry (9 projects—no awards); Residential Design, including houses and apartment houses, hotels and motels (194 projects—3 citations); Urban Design (18 projects—1 award, 1 citation); Education (79 projects—2 citations); Public Use (34 projects—first award, 2 citations); Commerce (60 projects—no awards); Recreation (31 projects—no awards).

Many hours of painstaking evaluation and debate led to selection of the twelve designs shown on the following pages. These, the jury felt, represented work which went beyond the merely competent, which offered an "idea," which solved the given problem in an unusually thoughtful way, and which generally denoted progress in architecture.

photo: Robert L. Pastner



*Design Awards Jury 1962:
(left to right) Fred Bassetti,
G. Holmes Perkins (Chairman of
the Jury), Henry A. Pfisterer,
Gordon Bunshaft, Arthur Drexler.*

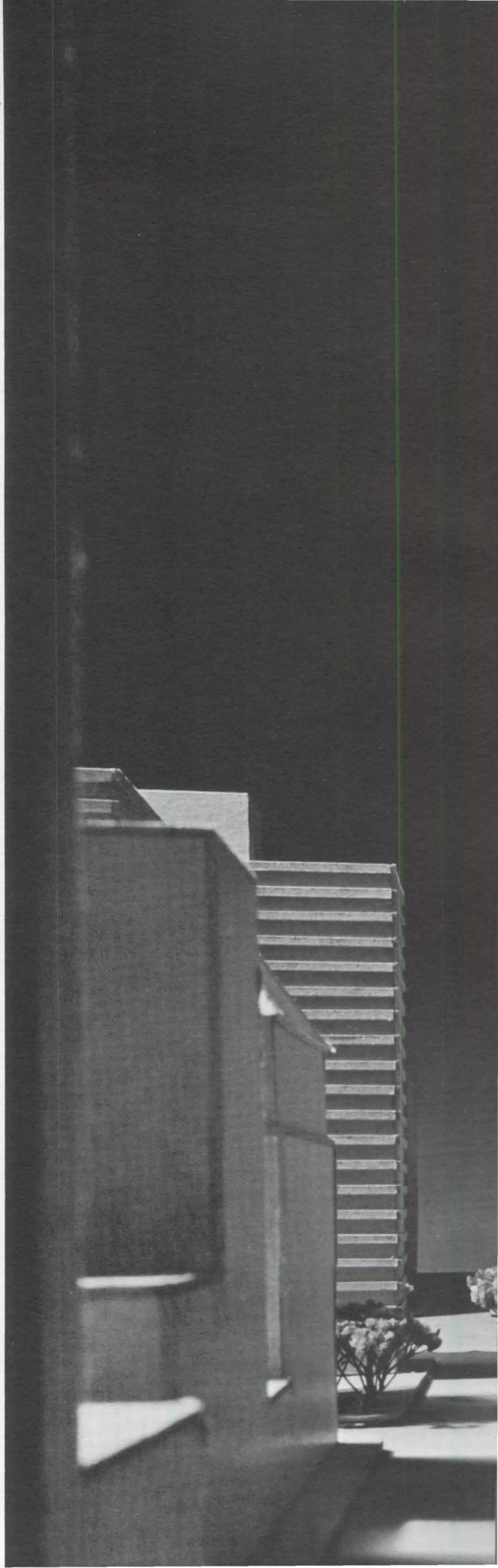


VINCENT G. KLING

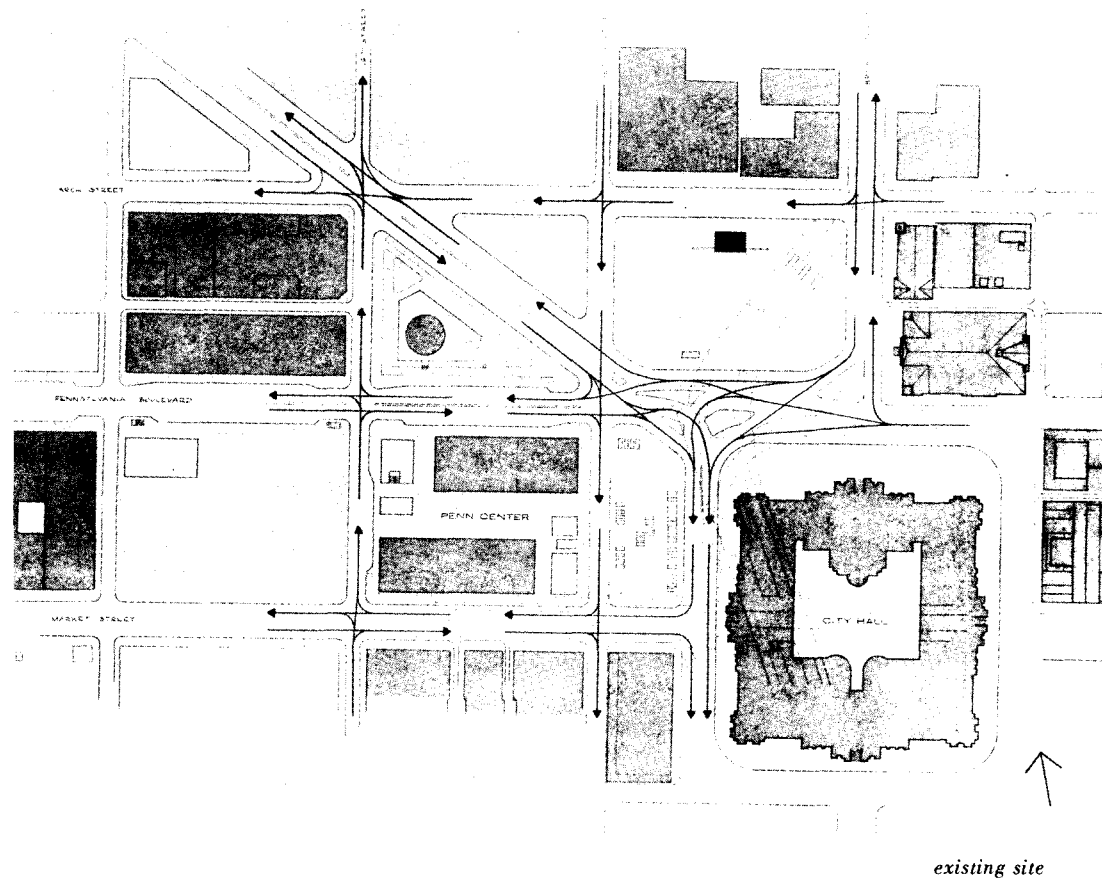
FIRST DESIGN AWARD

VINCENT G. KLING, ARCHITECT
McCORMICK-TAYLOR ASSOCIATES,
STRUCTURAL ENGINEERS
CHARLES S. LEOPOLD, INC.,
MECHANICAL-ELECTRICAL ENGINEERS
BECKER & BECKER ASSOCIATES,
SPACE PLANNING CONSULTANTS

model photos: Lawrence S. Williams, Inc.







existing site

Project: Municipal Services Building for City of Philadelphia, Pennsylvania.

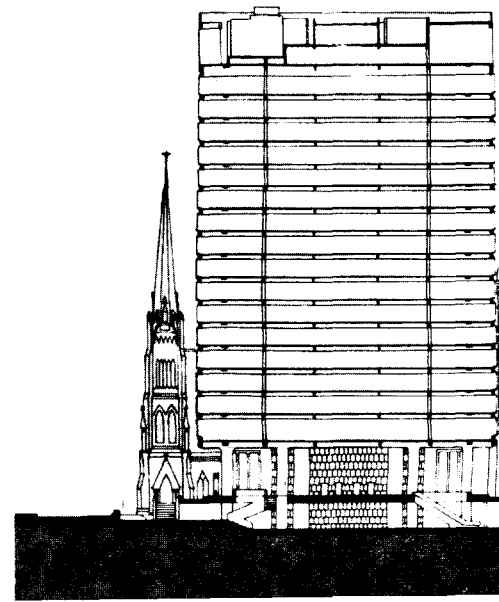
Site: An open block immediately northwest of the existing City Hall and adjoining Penn Center Commercial Development. The block (site plan above), which at present is a park, is separated from City Hall by an involved intersection where six heavily traveled streets run together. A four-track subway curves beneath the eastern half of the block, and a proposed railroad subway will run under the street on the south side.

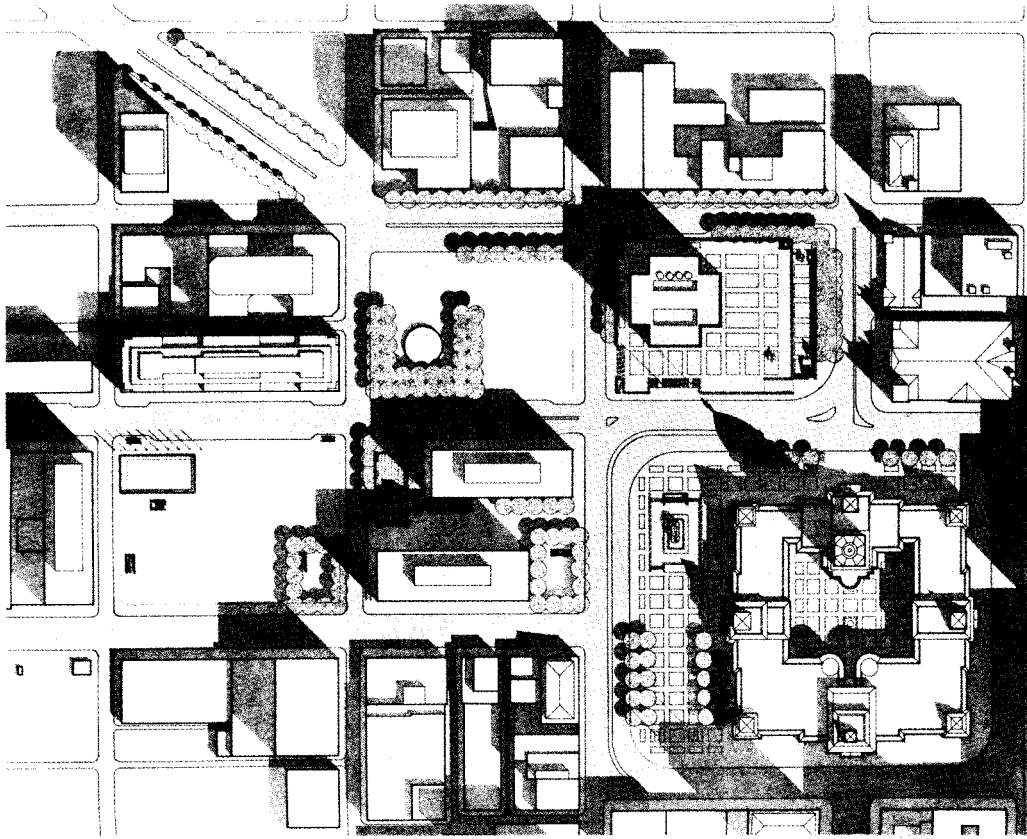
Program Requirements: To design an office building providing a minimum of 500,000 gross sq ft for 24 city departments and agencies. Those divisions having direct and frequent contact with the public to be easily accessible on the lower levels. Site to be kept as open and unencumbered as possible.

Design Solution: First consideration was the simplification of the complex traffic pattern (site plan, facing page top) and the creation of additional open space in the area. This has been accomplished on the south by joining two existing half-

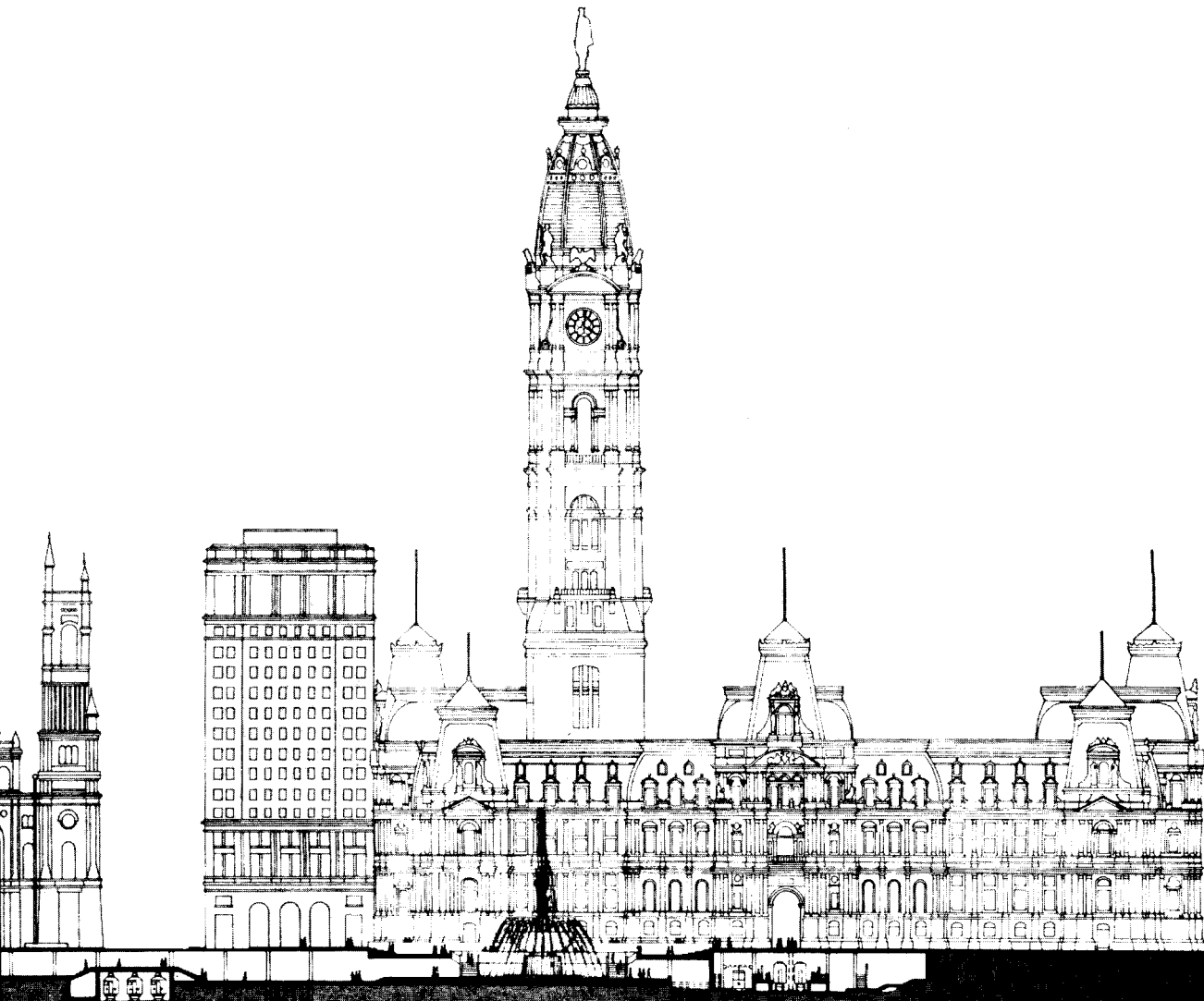
blocks to the west side of City Hall to create a plaza of appropriate scale between City Hall and the Penn Center Commercial Development. Benjamin Franklin Parkway is to be terminated one block short of City Hall, to simplify traffic movement around City Hall and Penn Center.

The building itself is composed of two parts: a 16-story cross-shaped tower, and an extensive concourse below street level for those government units that serve a large volume of the public. The lobby of the public service concourse, directly under the main lobby of the office tower, is ringed by service counters, where as many as 2000 persons at a time may apply for licenses, pay water and tax bills, and so on. Natural light will flow into the concourse through four wells in the tower lobby and through windows overlooking an open landscaped court. The public service concourse, the existing subway concourse, and the commercial concourse of Penn Center are all to be interconnected (section right) below street level.





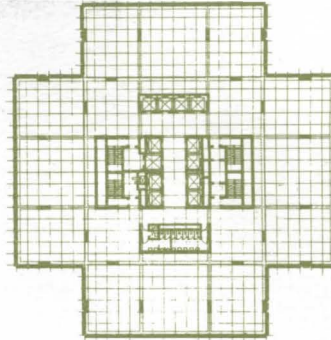
proposed site





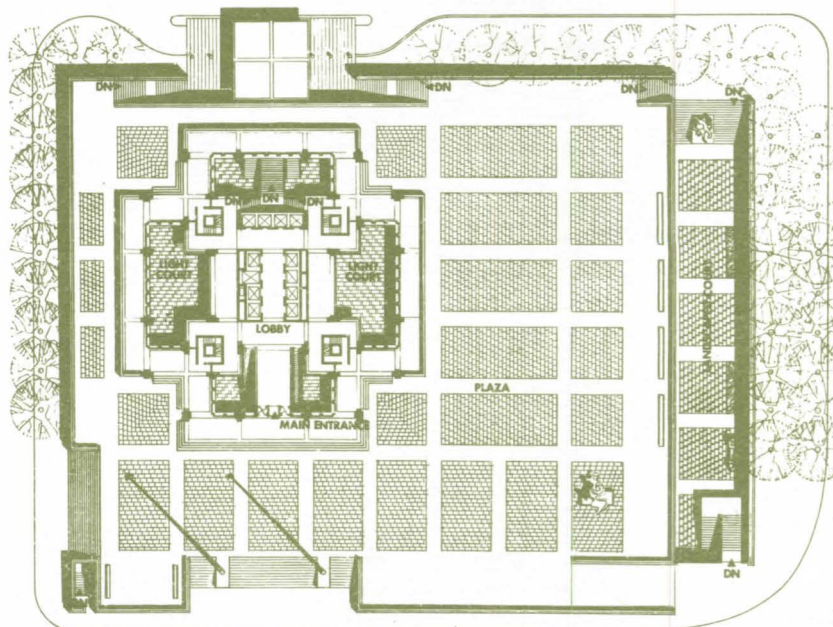
The office tower will occupy only 25 per cent of the site and is to be located on the northwest corner, where its foundations will be free of the subway and where the building will provide a visual terminus for the axis of the new plaza west of City Hall. "The omnidirectional, cross-shaped tower," suggests the architect, "is conceived as an object within the space comprising Reyburn Plaza, the new City Hall West Plaza and the parkway." Walls of the two-story-high plaza-level lobby are to be set back to bring the window line even with the edge of open wells, which let light into the main concourse floor.

Construction and Materials: The structure is to be of reinforced concrete. Primary columns are organized in a grid pattern, spanning 24 ft and 36 ft to permit the most efficient use of interior office space. Floors will be poured concrete on a beam and girder system that cantilevers 12 ft beyond the outer row of columns. The tower will be faced with precast stone panels that project 14 inches beyond the spandrels and which will contain the window unit. This unit is to be an insulating sandwich composed of two panes of glass, 5 in. apart, with a built-in vertical blind between the two layers of glass. Perimeter induction heating units will receive their supply through ducts and pipes enclosed in precast stone mullions on the outside of the building.



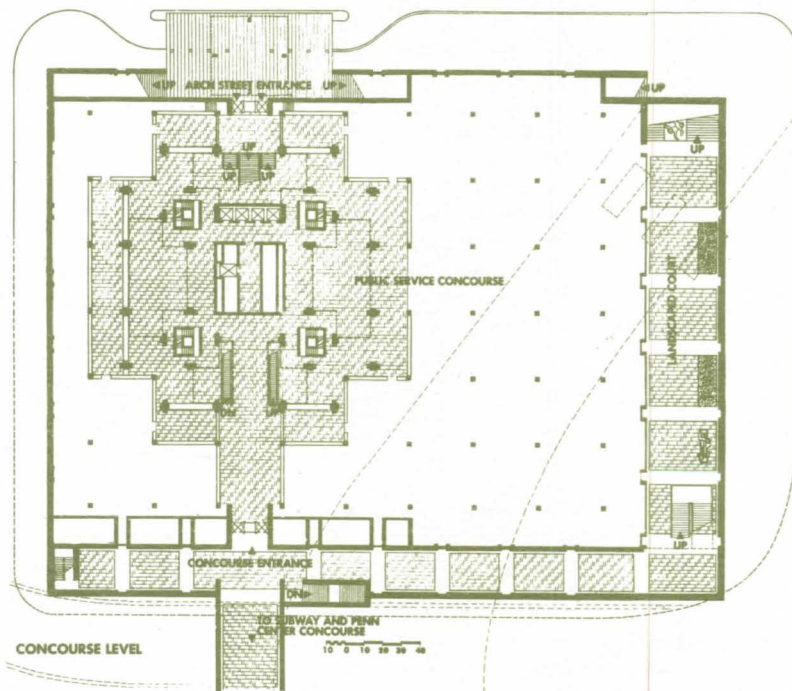
TYPICAL LOWER FLOOR PLAN

0 8 16 24



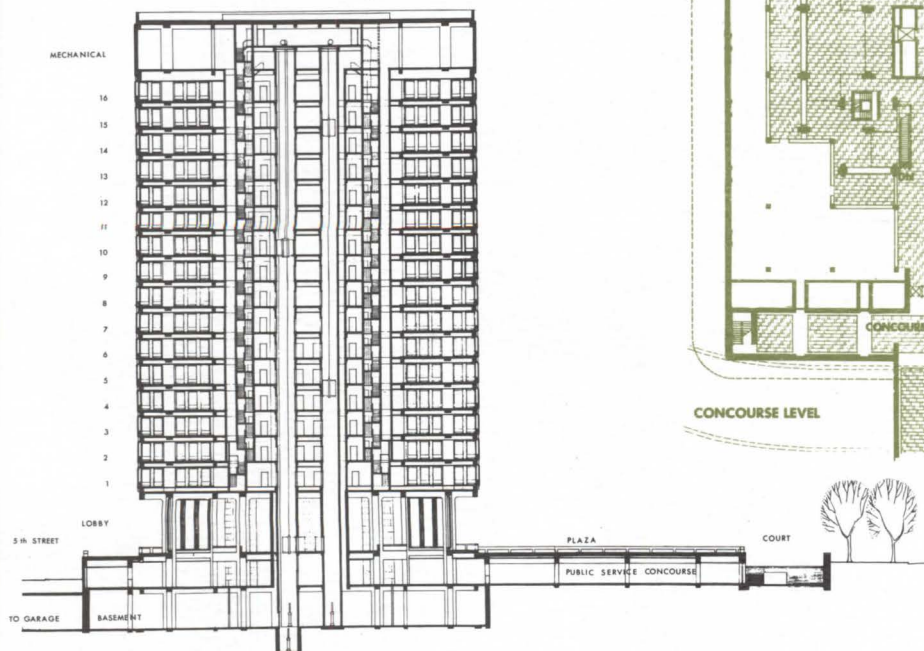
PLAZA LEVEL

10 0 10 20 30 40 50



CONCOURSE LEVEL

10 0 10 20 30 40





model: William Eichbaum

Jury Reaction: The first prize was awarded, quite literally, "to the architect and his client"—in this case, Vincent G. Kling and the City of Philadelphia. "The best thing about this top award," said one of the jurors, "is the fact that the community would give that much space on which to create a building. I think five or ten years ago that building would have been put on a little site, and no one would have dared to mention a plaza. The achievement is more than the architect's: it is also the community's."

As set forth in the proposed site plan, the jury agreed that traffic problems had been well resolved, that the newly created vistas and spaces were meaningful, that the new Municipal Building had been well placed within the context of the existing buildings, and that the proposed underground connections with existing city facilities were desirable and practical.

As a spatial concept and as a workable answer to a building for public service, the jury particularly commended the planning of the lobby and concourse levels (right). "This will be a very exciting kind of space to walk into," remarked one juror, "and the character of light seen under the plaza will be quite rich."

Two small criticisms by the jury—one the "relationship of the mezzanine levels to the structure," the other "the barrenness of the outside plaza"—were considered to be easily rectifiable upon further study.

In total, the jury considered this project to be a notable contribution to civic architecture and town planning—a project symbolic of the new civic spirit evident throughout the 1962 Design Awards Program.







KNORR



ELLIOTT

CITATION

public use

KNORR & ELLIOTT,
ARCHITECTS
LAWRENCE HALPRIN,
LANDSCAPE ARCHITECT
STEFAN J. MEDWADOWSKI,
STRUCTURAL ENGINEER

Project: The Lotus Reservoir for the East Bay Municipal Utility District, Oakland, California.

Site: Over 100 separate properties of varied terrain and size, located within a 245-square-mile area on the east side of San Francisco Bay.

Program Requirements: To design a prototype water storage facility which could be adapted to the various site conditions. Tanks must be above ground for practical reasons. The storage tanks will serve approximately one million residents of the area and 1500 industrial plants. Water from the natural source is to be stored in two giant multibillion-gallon reservoirs and will be conveyed from there via two aqueducts, through filter plants, to 116 distribution reservoirs of the type proposed here. The tremendous population expansion has necessitated a parallel increase in the construction of distribution tanks. Increasingly, these tanks must be located in built-up areas, thus making their visual appearance a major factor. The client has realized this and expressed it in this statement: "Although the natural beauty of the existing sites has been preserved by extensive landscaping programs, it is apparent that, as the population density increases, the time will come when these measures won't solve every problem. The only remaining step is to redesign the tank-type reservoir so that, while it remains functional, it will in itself be an architectural asset to the community."

Design Solution: In the redesign of the typical cylindrical tank-type reservoir, the architects strove to: (1) decrease the heavy appearance of the standard tank; (2) create strong play of light and shadow in the new design in order to "break up" the massive appearance; (3) arrive at a bold form that could be distinguished from a distance; (4) stress





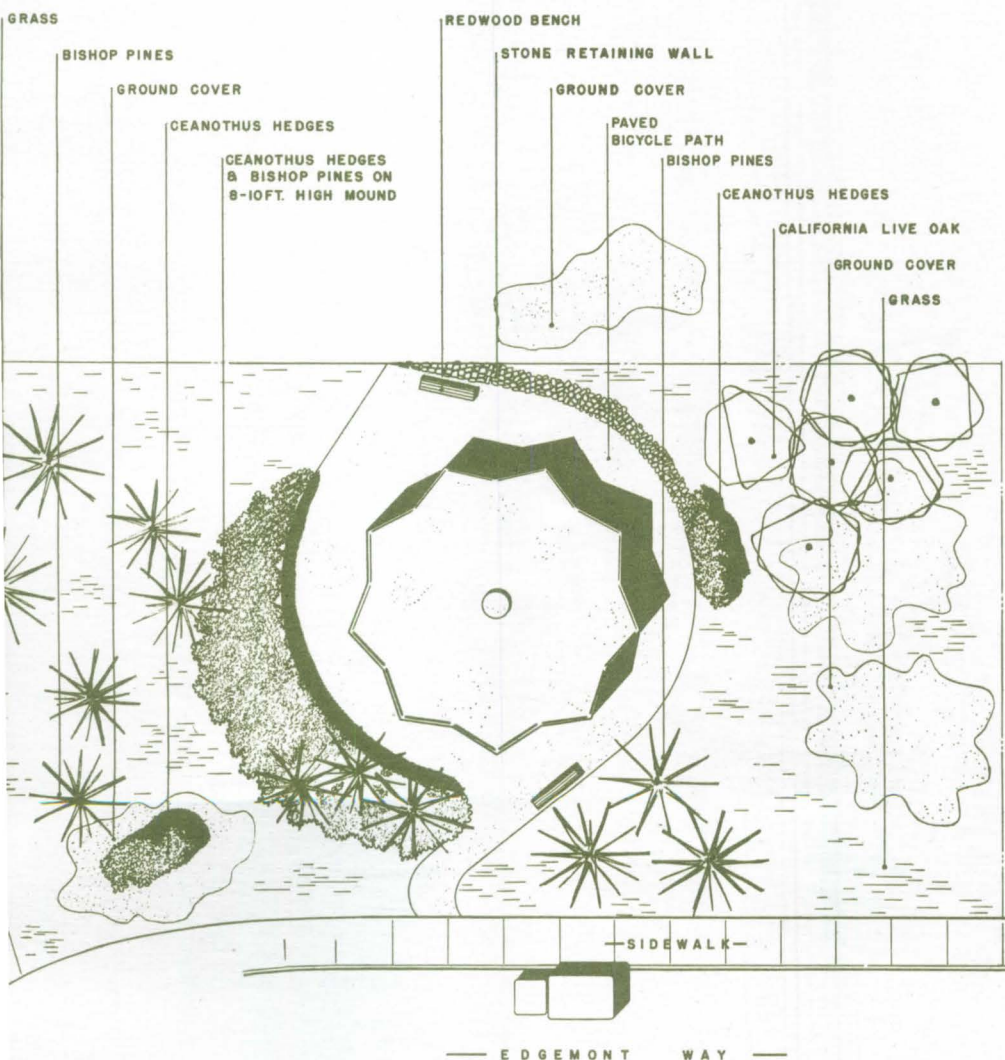
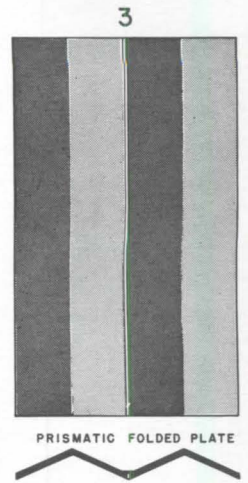
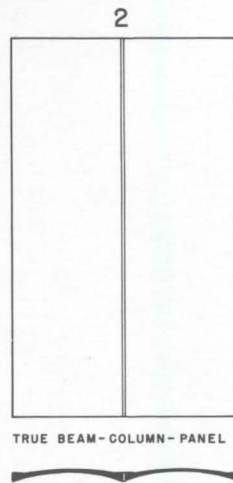
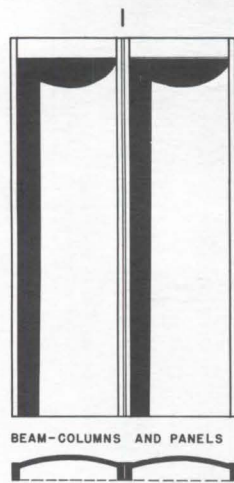
new design proposal



standard tank



drawing: William Johnson



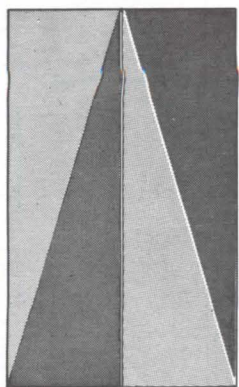
neither horizontality nor verticality—but rather a diagonal line; (5) avoid an overly strong horizontal line at the top; (6) make use of native planting, in grouped forms, to complement the structure, rather than to screen it; (7) standardize height of various-sized reservoirs for economy of construction.

Construction and Materials: Concrete was chosen for reasonable cost, low maintenance, possibility of pleasing exterior surfaces, and advantages of using precast methods.

The floor slab of the tank is to be poured in place on grade. Rings at the base and roof are also to be poured in place and post-tensioned. The 9' x 32' precast concrete wall panels (shown above in their several stages of design development from proposal #1 to the final version #6 B) act as beam columns spanning vertically between the rings. Hoop stresses will be resisted by the rings, assisted by the precast wall panels. Wall sections are to be joined by welded steel inserts and grout. The roof is designed as a tension structure that uses cables and mesh, with the deck poured directly on the mesh.

Jury Reaction: Though the jury debated at length the advantages of the standard cylindrical tank design versus this new proposed design, all agreed that, aesthetically, the redesign was warranted and successful. The final shape was considered to be a valid solution structurally and an attractive, sculptural shape when seen from the different vantage points and in their various settings.

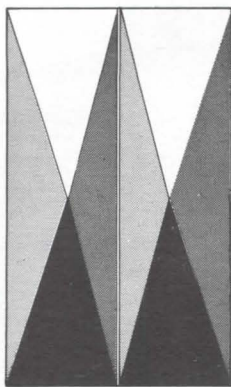
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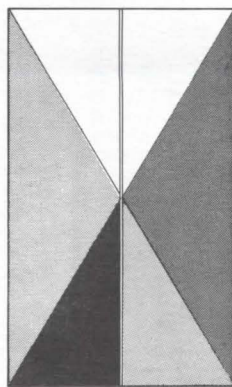
NON-PRISMATIC FOLDED PLATE



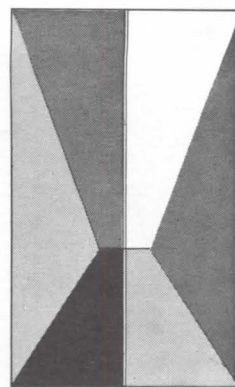
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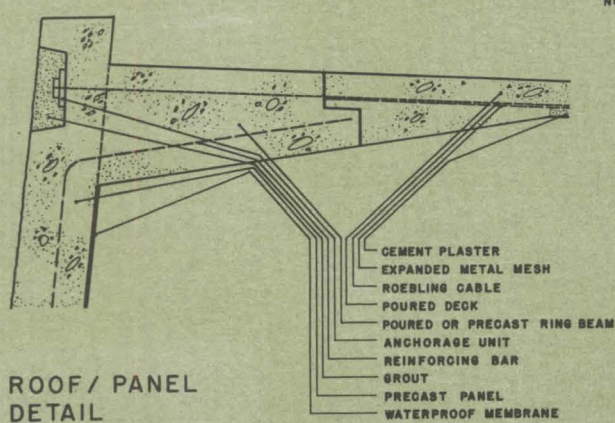
NON-PRISMATIC FOLDED PLATE

6_A

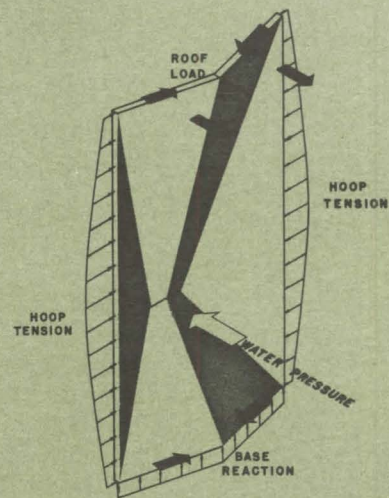
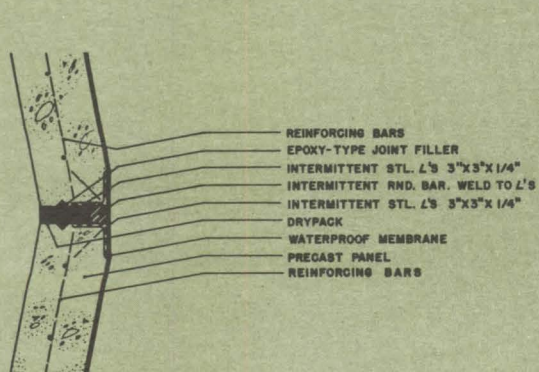
NON-PRISMATIC FOLDED PLATE

6_B

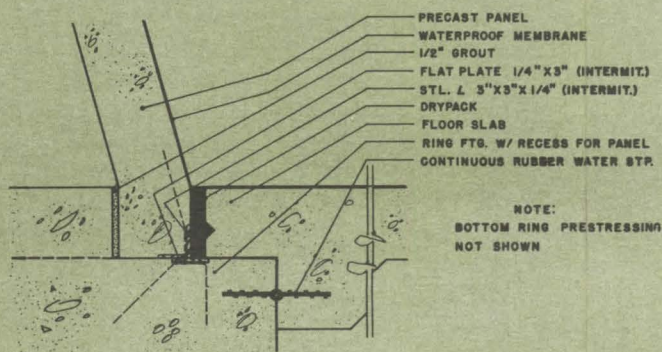
NON-PRISMATIC FOLDED PLATE

ROOF / PANEL
DETAIL

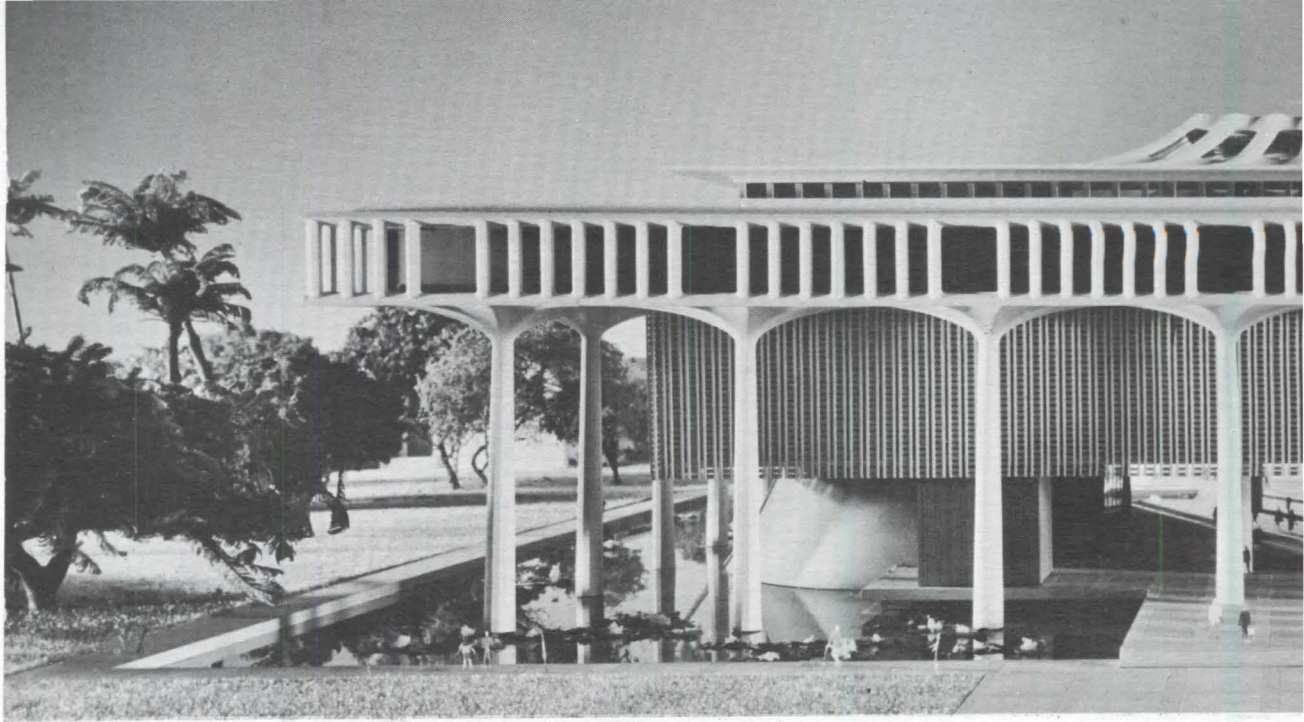
NO SCALE

NOTE:
RING PRESTRESSING
NOT SHOWNTYPICAL TWIN PANEL
WITH LOADS

SECTION THRU PANEL JOINT

NOTE:
BOTTOM RING PRESTRESSING
NOT SHOWN

BASE / PANEL DETAIL



WARNECKE

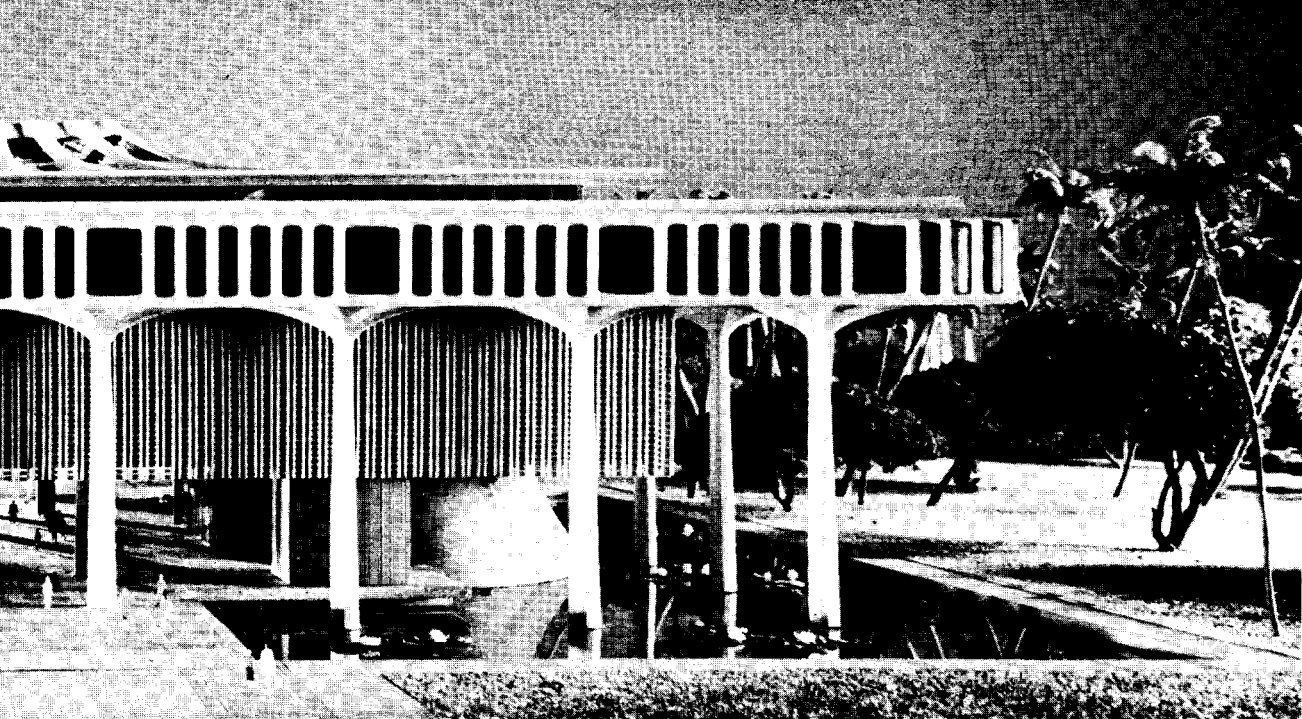


LEMMON

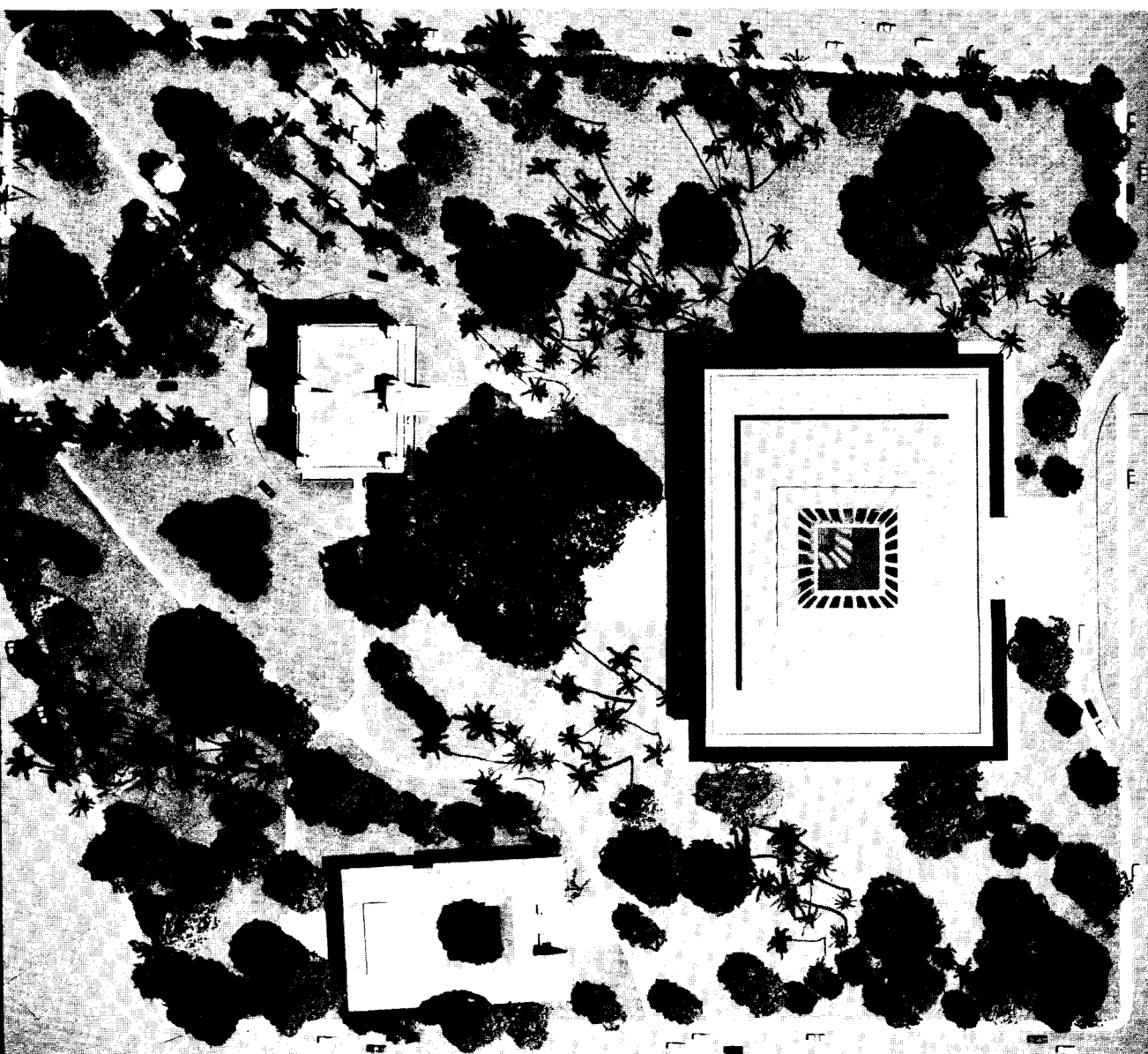
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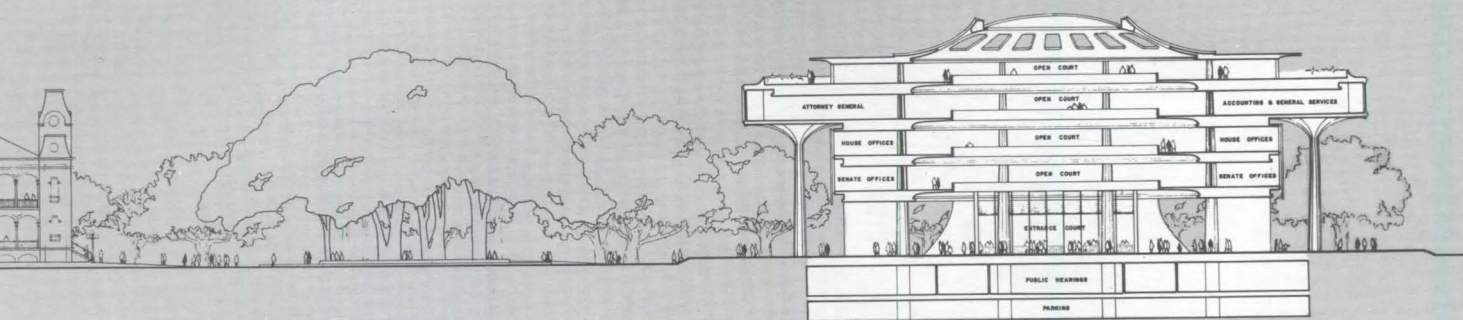
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JOHN CARL WARNECKE,
ARCHITECT IN CHARGE OF DESIGN
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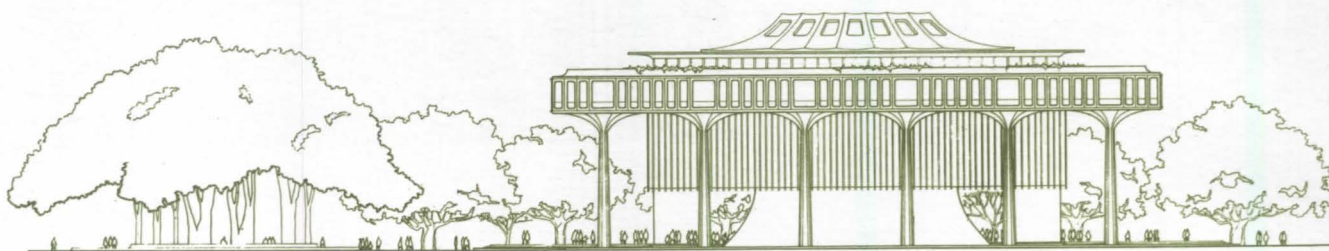


model photos: Gerald Ratte





TRANSVERSE SECTION



Project: Capitol for the State of Hawaii.

Site: A handsome 24-acre park that already contains the 80-year old Iolani Palace, the traditional seat of government for the Hawaiian Islands. A giant East Indian banyan tree in the center of the park denotes the axis on which the new Capitol building is to be placed. It is proposed that several minor existing buildings and a street, which now bisects the park, be removed.

Program Requirements: As the most important public edifice in Hawaii, the Capitol building was to reflect the historical, social, and ethnic cultures of the people, and the natural beauty of its geographic setting.

Design Solution: A building of elegance and dignity, set in a smooth sheet of water within a handsome park. "The Capitol has been planned," according to the architects, "to serve both legislative and executive functions as competently and simply as possible. The center of the building, surrounded by a ring of columns, is a great entrance well open on all sides at ground level and reaching upward through four floors of open galleries to the crown canopy and the open sky. Visitors can walk directly into the spectators' galleries overlooking the House and Senate chambers situated at ground level, and they can reach any of the upper floors by elevators."

At the level of the chamber floors (see plans following page) are also caucus rooms, clerks' and attorneys' offices, a library, a public hearing room, and suites for the President and Speaker of the House and their staffs.

The two legislative office floors—one for the Senate, the other for the House—are of similar design, with peripheral offices for the legislators. These offices are planned on a modular basis: the typical one, measuring 15' x 30', divisible into a 15' x 15' private office and ante-room.

The fourth floor houses key staff agencies and the offices of the Governor and the Attorney General. Space is also provided for the Legislative Council.

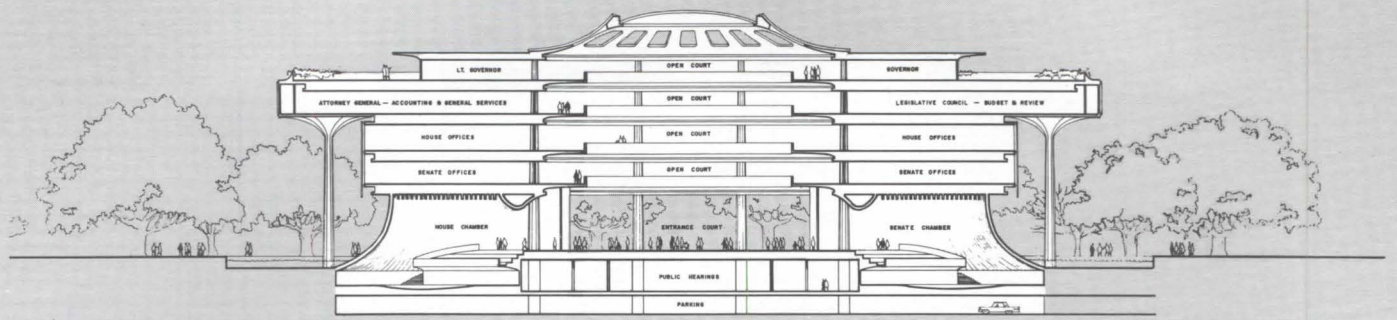
On the uppermost floor are the suites for the Governor and Lieutenant Governor. Looking outward from this elevation there will be wide, sweeping vistas of the Punchbowl and the sea; looking inward, the internal courtyard and its tropical planting will be open to view.

Parking for 234 cars is provided in the basement; parking for visitors is off the site.

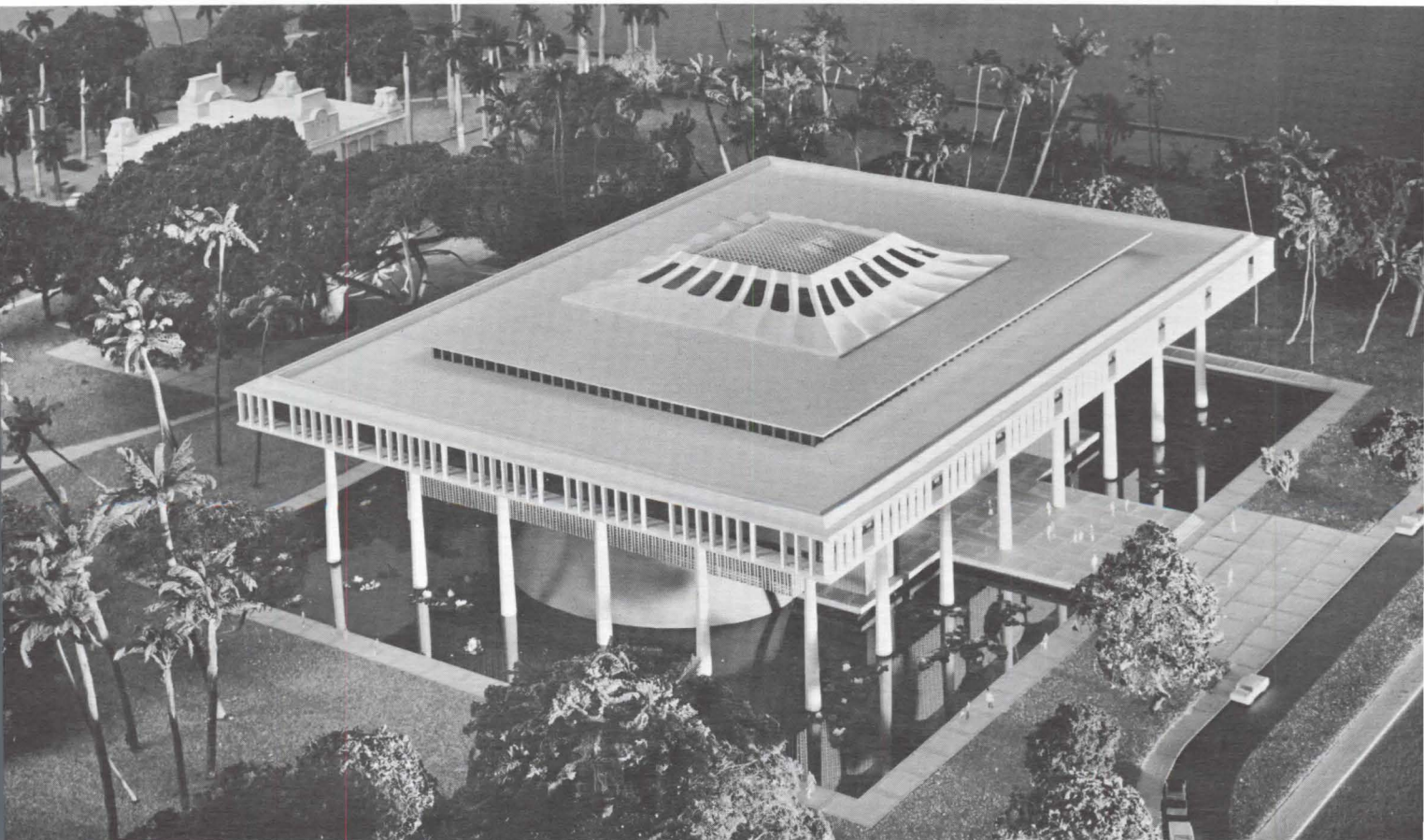
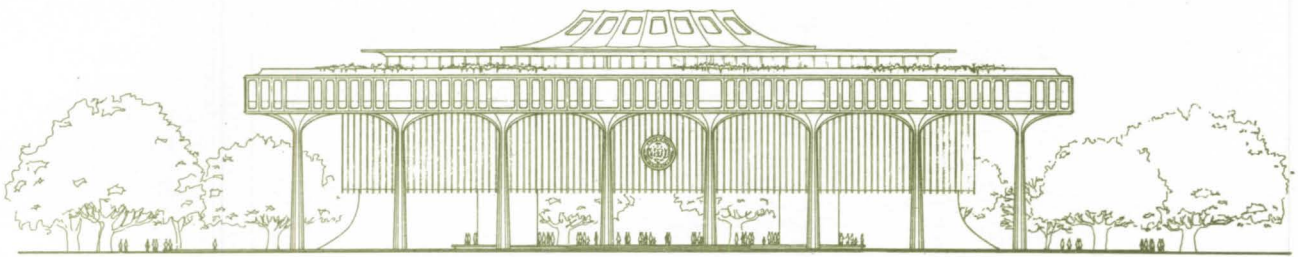
Construction and Materials: The structure will be of reinforced concrete and has been designed to resist earthquake forces. A ring of 24 exposed concrete columns will rise from the reflecting pool to a height of almost 60 ft to support

the largest single floor, which forms a reinforced concrete frieze. All materials will be fire-resistant. The solid masses of the legislative chambers at ground level and the galleries in the central space offer opportunities for mosaic murals. Interior surfaces will be finished with materials of a permanent nature, and, as far as possible, use will be made of indigenous materials. Such native hardwoods as obia and koa will surface the public spaces.

Jury Reaction: "I don't know of any other government building," said one of the jurors, "that has as engaging a character as this, and one that still preserves the importance of the place of assembly as compared to the legislative offices." However, all of the jurors seriously questioned the honesty of the structure—the use of the mushroom columns for the support of the departmental floor, the unexplained structural support for the remaining floors, and the use of the screen to enclose the Senate and House office floors. "This makes this a non-serious building," remarked one of the jurors, "though I like the spirit of the building and the appropriateness of the design concept for that site." The citation was given on the basis of freshness of design idea, quality and scale of the building, and its stature as an architectural symbol.

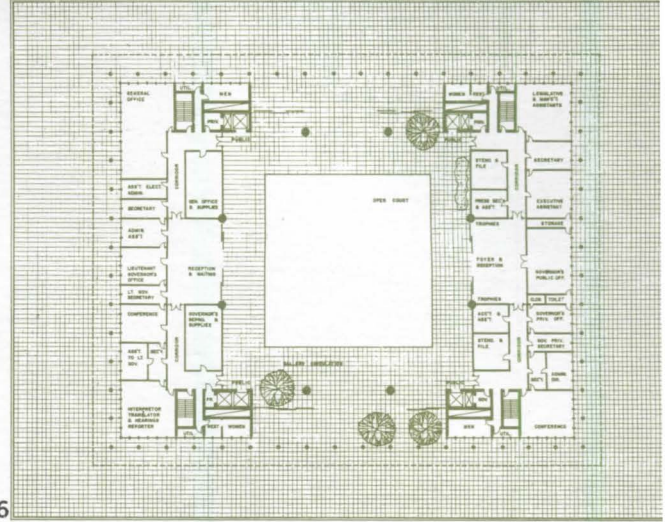


LONGITUDINAL SECTION

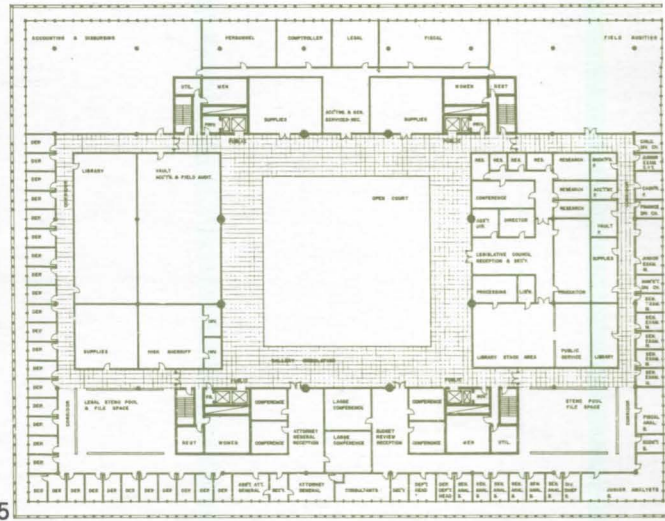


- 1 chamber level
- 2 ground level
- 3 senate level
- 4 house level
- 5 departmental level
- 6 executive level

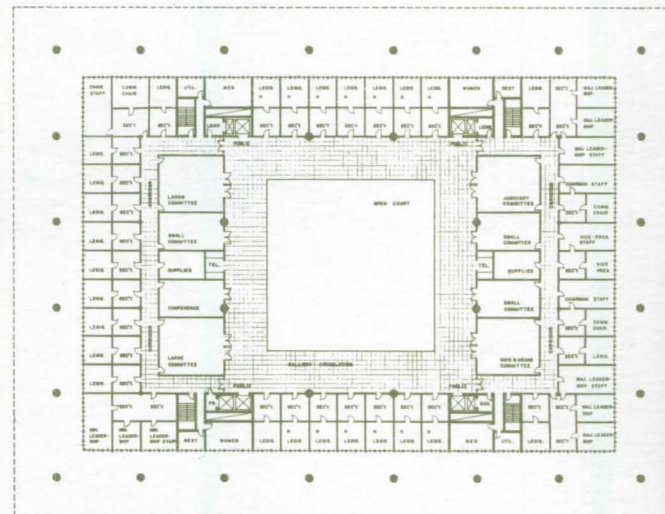
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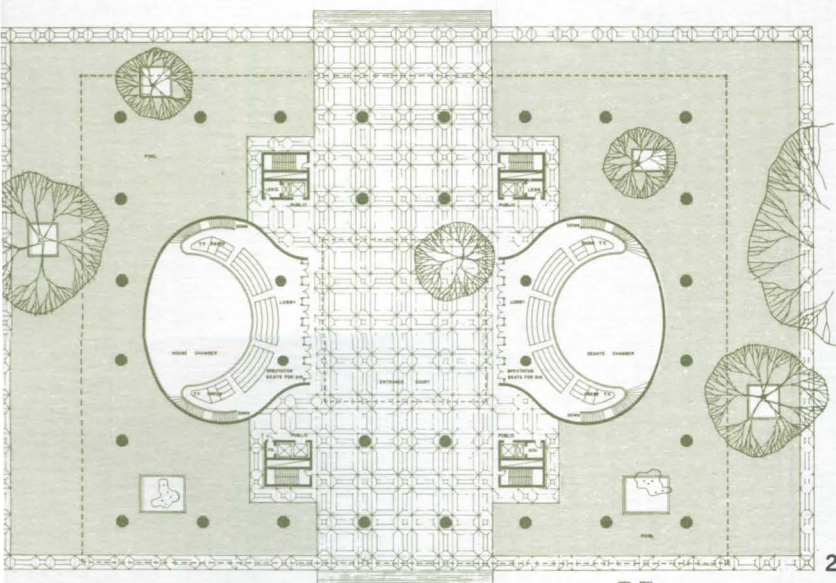
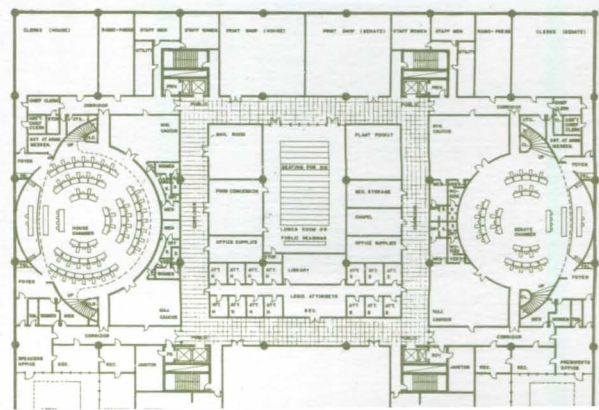
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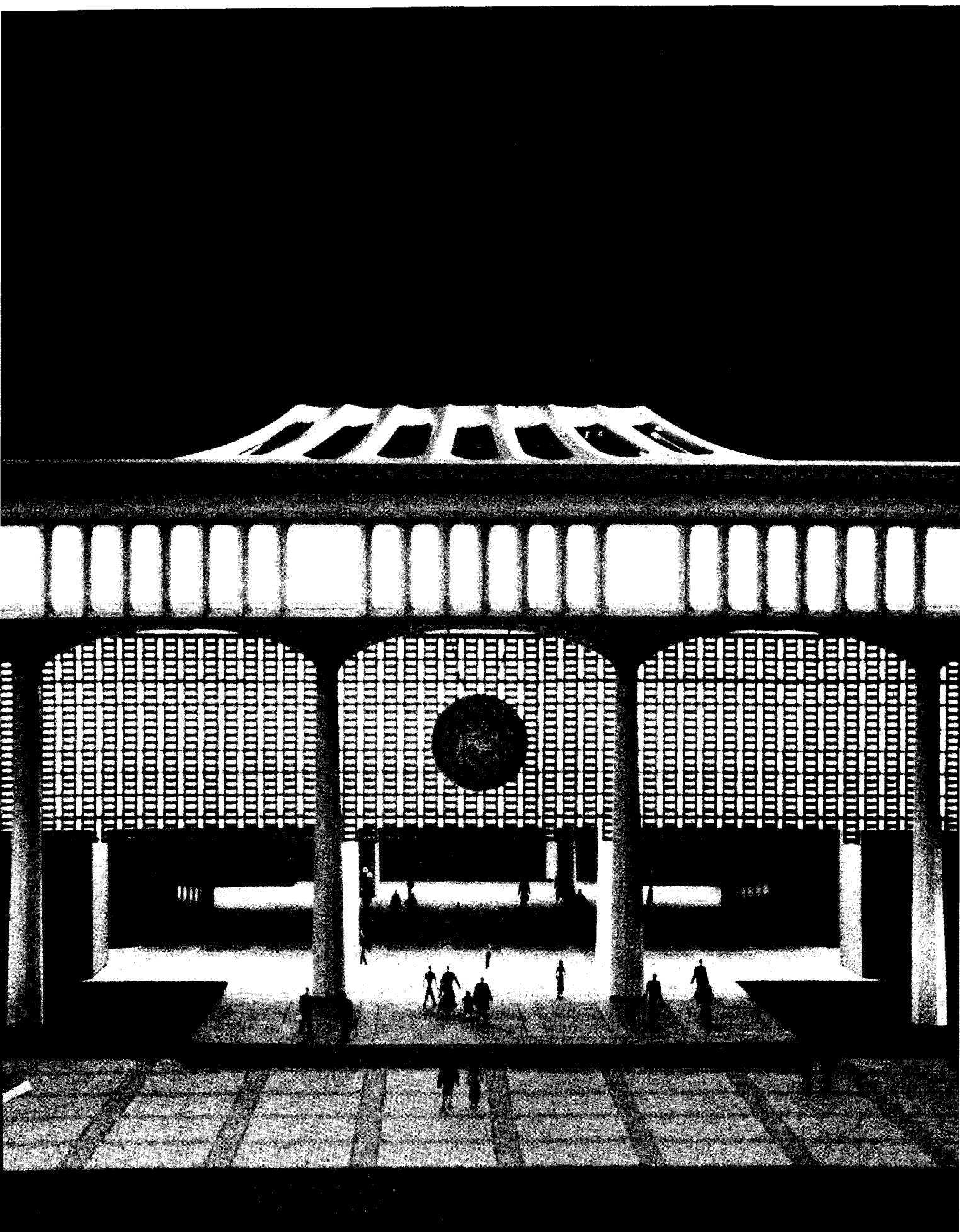
3 & 4



SENATE LEVEL



GROUND LEVEL





GEDDES



BRECHER



QUALLS



CUNNINGHAM

AWARD

urban design

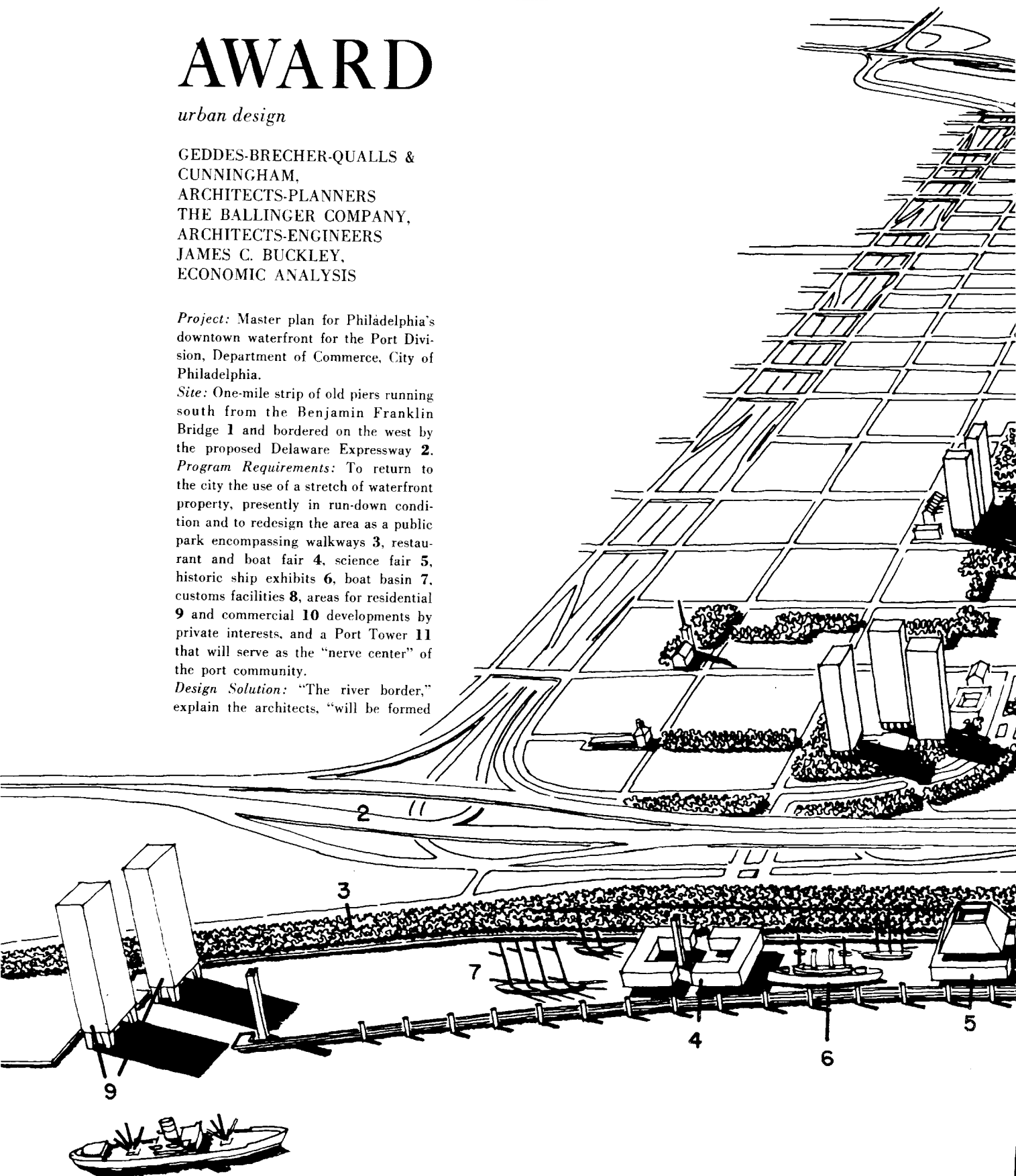
GEDDES-BRECHER-QUALLS &
CUNNINGHAM,
ARCHITECTS-PLANNERS
THE BALLINGER COMPANY,
ARCHITECTS-ENGINEERS
JAMES C. BUCKLEY,
ECONOMIC ANALYSIS

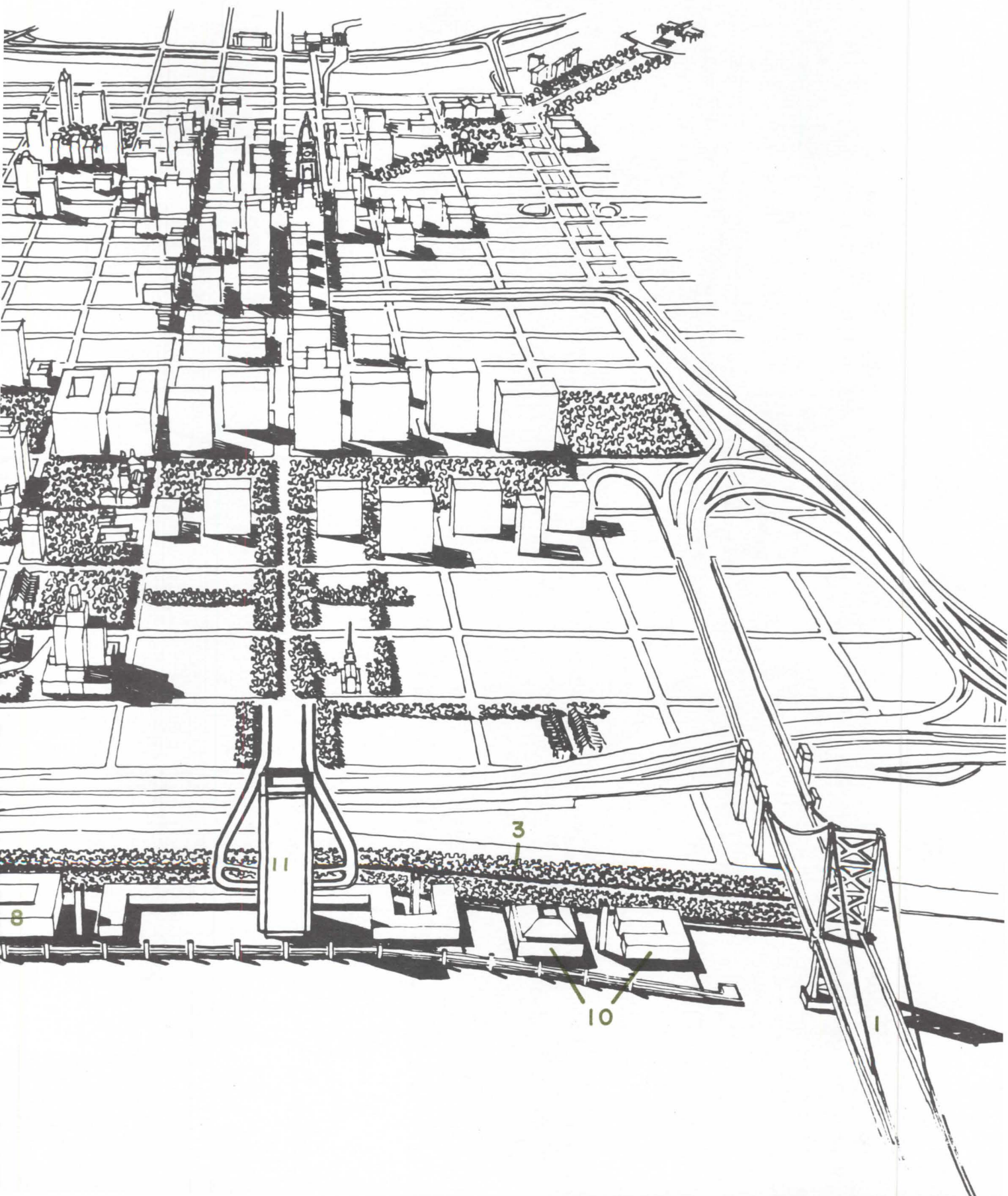
Project: Master plan for Philadelphia's downtown waterfront for the Port Division, Department of Commerce, City of Philadelphia.

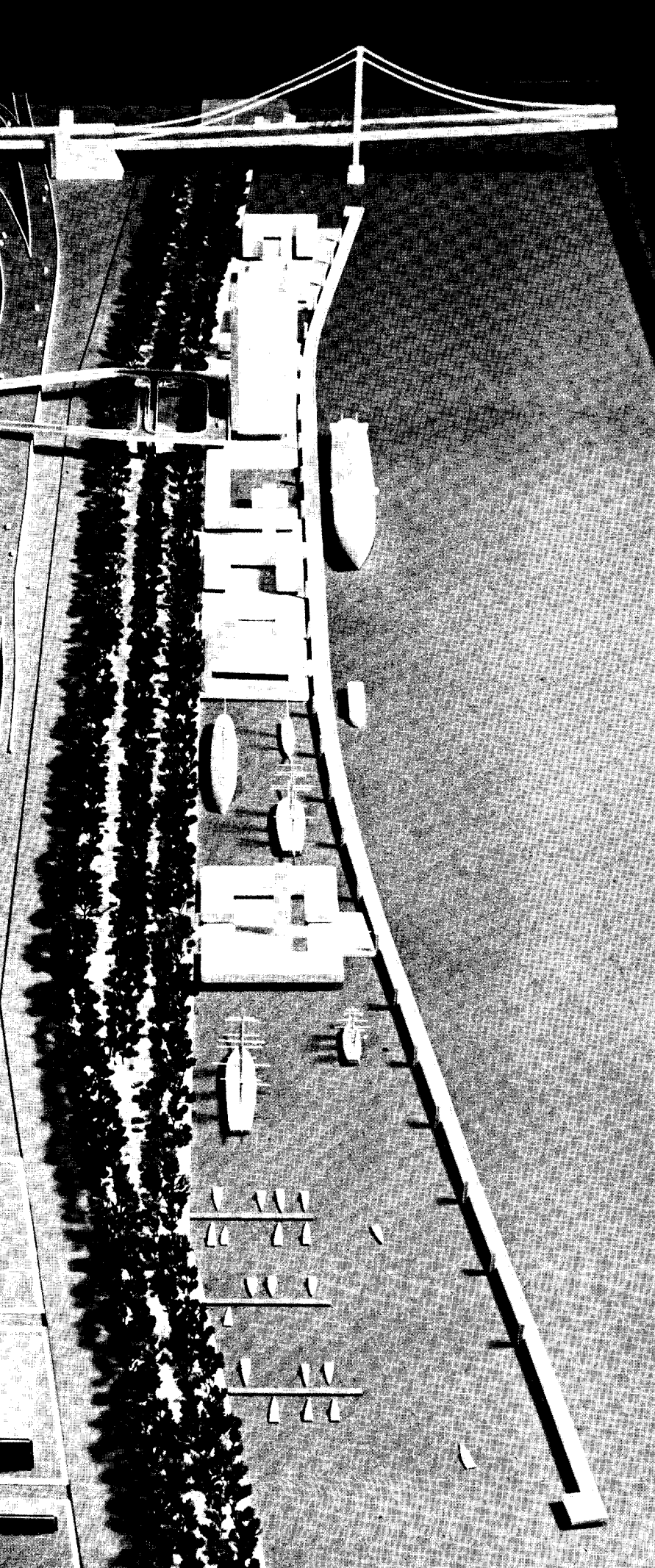
Site: One-mile strip of old piers running south from the Benjamin Franklin Bridge 1 and bordered on the west by the proposed Delaware Expressway 2.

Program Requirements: To return to the city the use of a stretch of waterfront property, presently in run-down condition and to redesign the area as a public park encompassing walkways 3, restaurant and boat fair 4, science fair 5, historic ship exhibits 6, boat basin 7, customs facilities 8, areas for residential 9 and commercial 10 developments by private interests, and a Port Tower 11 that will serve as the "nerve center" of the port community.

Design Solution: "The river border," explain the architects, "will be formed

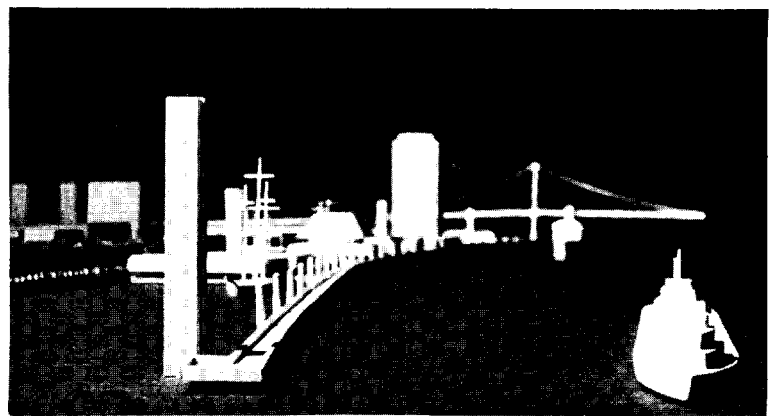
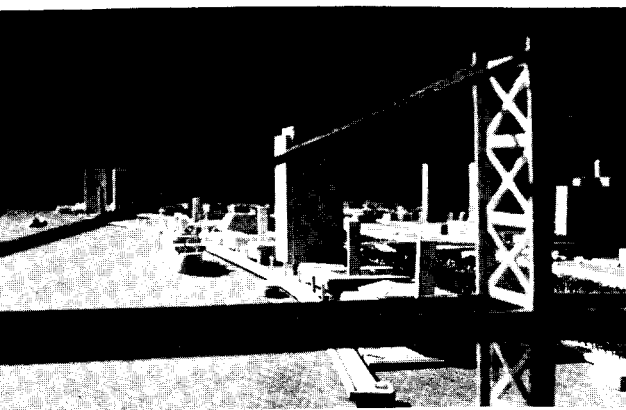






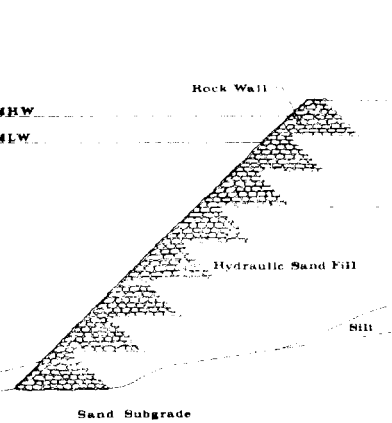
by a crescent-shaped embarcadero, offering pedestrians a first-hand view of the port, and providing berthing space for cruise ships and sight-seeing boats. The land edge will be formed by a tree-lined promenade and parking area. Between the embarcadero and promenade will be clusters of buildings constructed over basins of water." This concept, already part of the city's Comprehensive Plan, is to be executed in three stages over a period of 15 years. "The planning of the new waterfront," continue the architects, "included intensive engineering and economic analyses. The pier decks in good structural condition will remain as the nuclei of the clusters of new buildings. The alternative ways of building, and their costs, were studied, such as land-fill and bulkhead, decking and piling, and floating structures. The total project costs were analyzed in terms of the stages of development, the cost to the public agencies and private developers, and the economic feasibility of each part." The total investment, partly public, partly private, is to be \$85 million. Various architects are to be called upon to design the individual buildings.

Jury Reaction: The jury termed this design proposal a "... highly civilized notion. Here is an attempt," they said, "to bring back part of a waterfront which has deteriorated, and has to a large degree been cut off from the city by a major expressway." The project, they felt, was excellently tied into the over-all plan of the city, and the means of access from center city to the waterfront park was well co-ordinated. Though only suggested in the present design shapes, the jury admired the grouping of the buildings as shown in the model photos and drawings, and expressed the hope that future development by individual architects would be guided by this design concept.

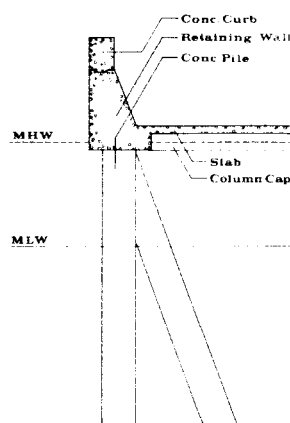


model photos: Lawrence S. Williams, Inc.

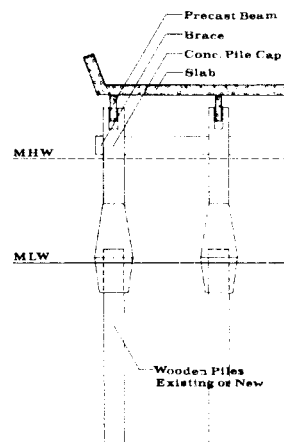
studies of ways of building on the waterfront



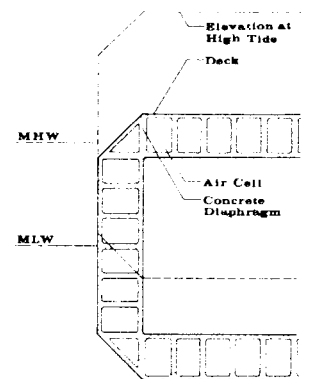
rock dam



low concrete deck

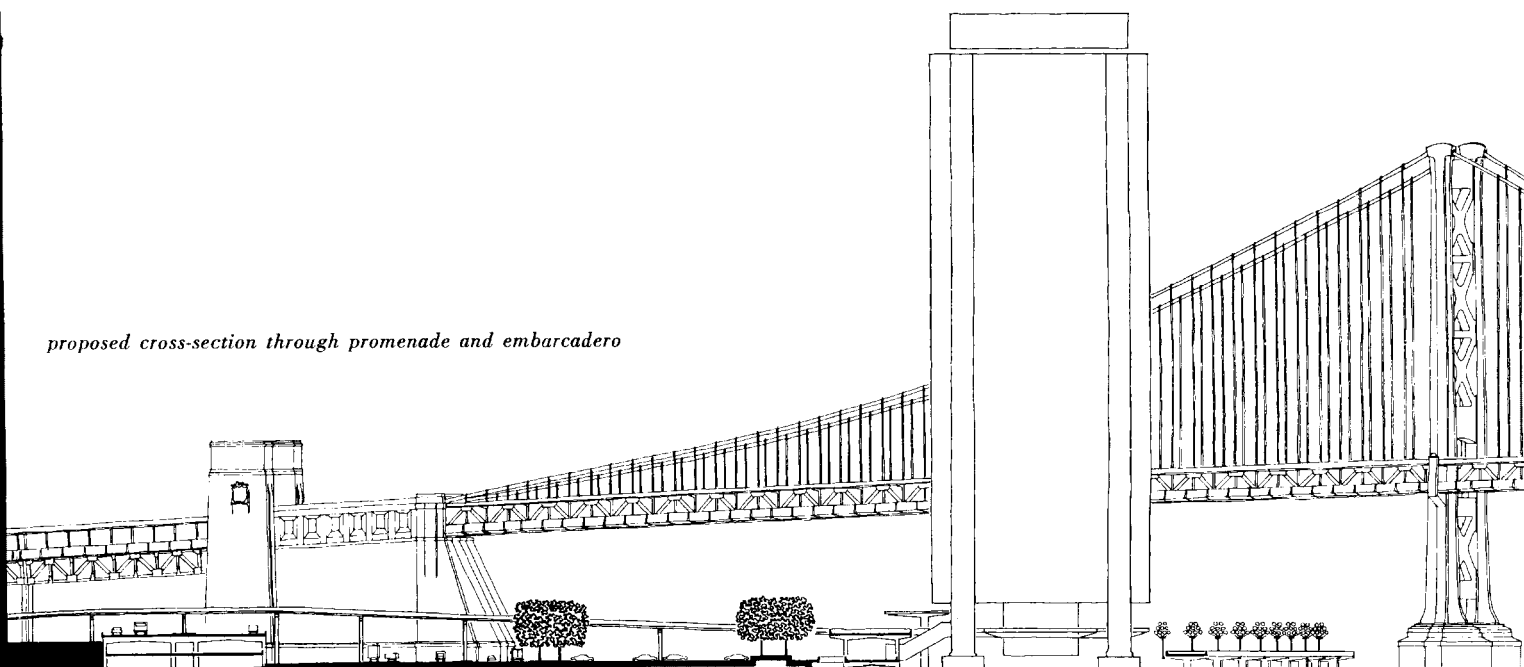


concrete pile caps



floating structures

proposed cross-section through promenade and embarcadero





HISAKA

CITATION

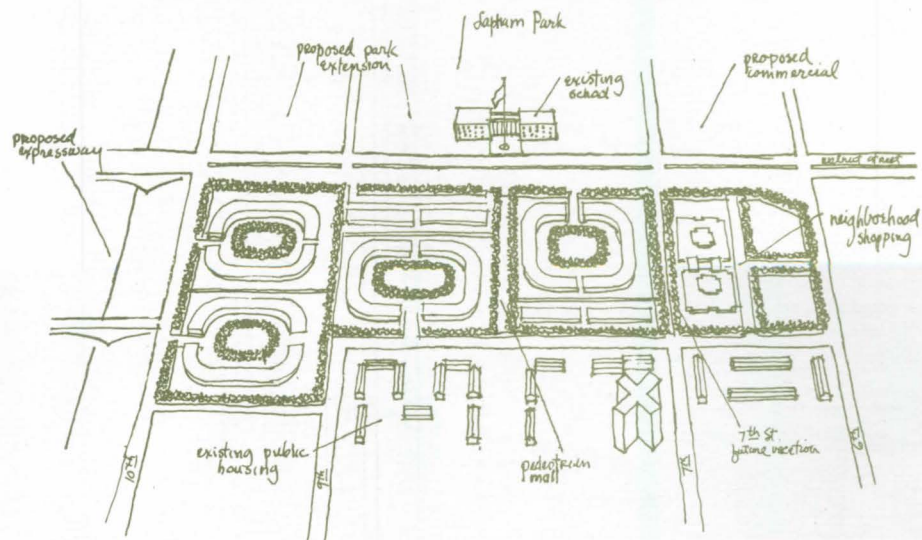
urban design

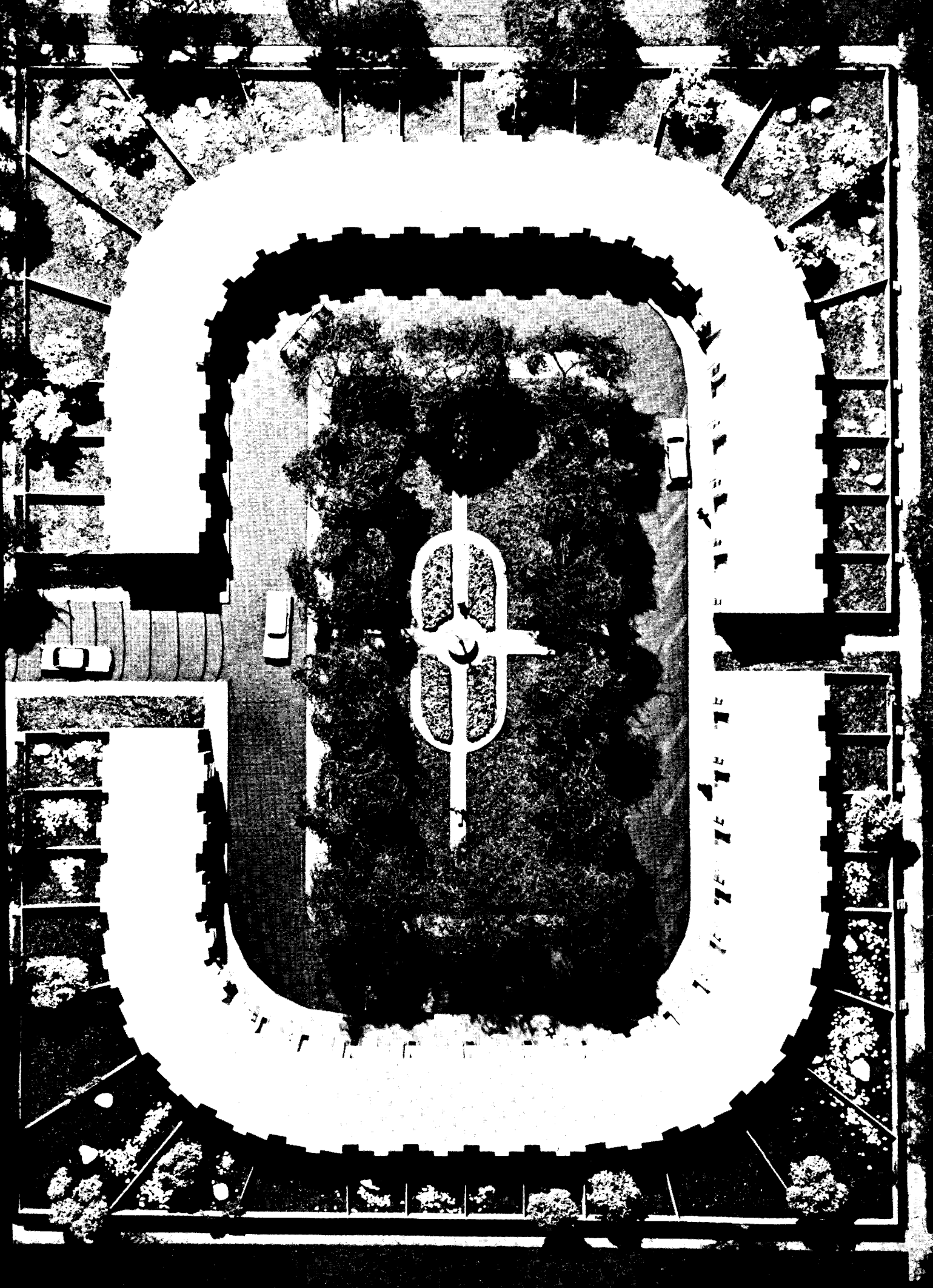
DON M. HISAKA,
ARCHITECT
AMMANN & WHITNEY,
CONSULTING STRUCTURAL
ENGINEERS

Project: Hillside Redevelopment Project, Milwaukee, Wisconsin, for Horizon Renewal Corporation: Leonard G. Styche, Alan Crawford, Sidney Freedman.

Site: The redevelopment area is located within a mile of downtown Milwaukee and is presently bordered by public housing to the south (below); an existing school, park, and a run-down commercial area to the north; residential areas to the east and west. The nature of the site will be directly affected by future changes to be implemented by the Planning Commission and the Redevelopment Authority of the City of Milwaukee. These changes will entail the extension of Lapham Park along the northern boundary, an expressway to the west, and a new commercial block to the northeast. The total site amounts to 11.39 acres, of which 9.83 acres will be residential; 3.36 acres are to be commercial.

Program Requirements: Low-cost sales housing in the \$12,000 price range. Housing was to provide the following amenities: (1) vehicular access to each



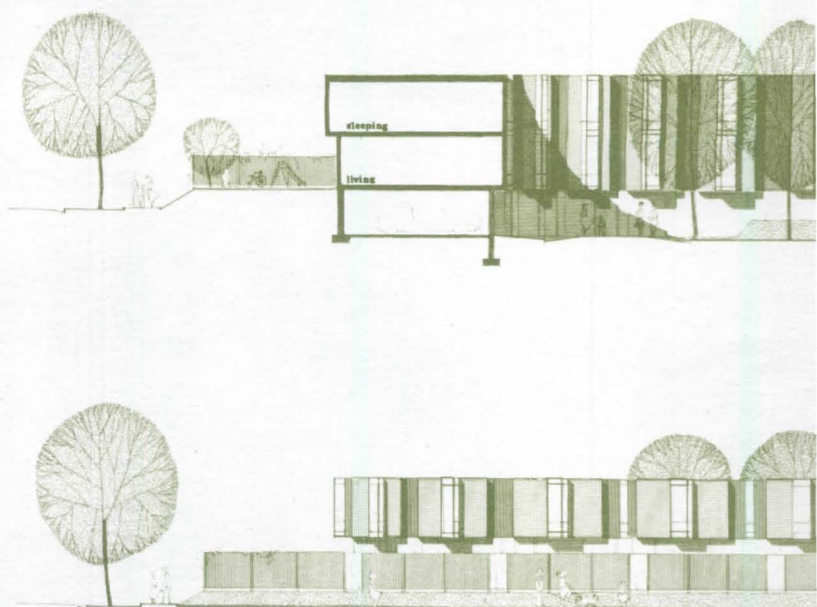


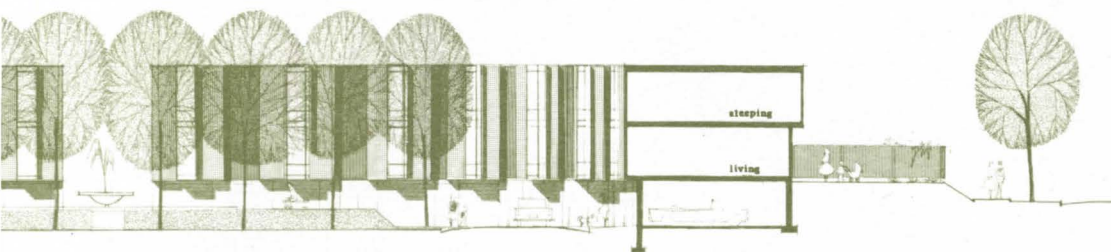
unit; (2) private outdoor space for each family; (3) expression of the individual units.

Design Solution: "The solution to this program," comments the architect, "provides for a series of parks enclosed by multilevel townhouses. The introverted scheme allows each unit to look out on both these parks and gardens, which are enclosed by a fence to insure privacy and to obscure the blighted condition that surrounds portions of the site. The scheme further allows each unit a garage with direct access to the living area above. The project is interlaced with pedestrian walks; with the vacating of 7th Street, as proposed by the City, people will be able to walk to the shopping center without crossing streets." *Construction and Materials:* Masonry will be used to the level of the living room floors; wood frame is to be used above.

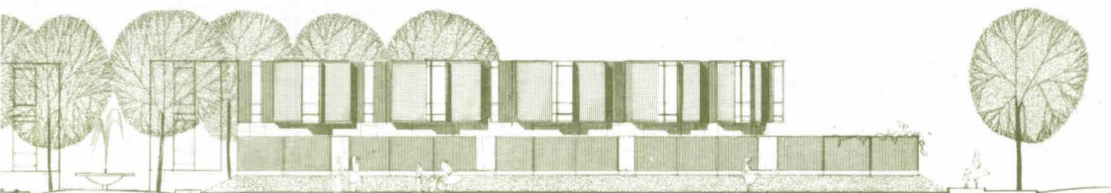
Jury Reaction: "A wonderful section," commented the jury, "which will solve not only the parking problem but will also permit a view of greenery in both directions." One member of the jury questioned the insistent repetition of the individual unit, as well as the recurrent U-shape of the block, and wanted to see "a change of pace somewhere." However, he and the other jurors agreed that "the units are well laid out in the interior," and that "there is some variety of space outside because of the curves at the corners."

To summarize, the jury felt that, in spite of the stipulated high density of 20 families per gross acre and 100 per cent on-site parking, this solution was a "great relief and improvement" over the standard low-cost housing project. By very simple means, the architect has provided solutions to several housing problems that are usually ignored. At the same time, his plan will provide an environment that, while it encourages community life, also respects the privacy of the individual family.



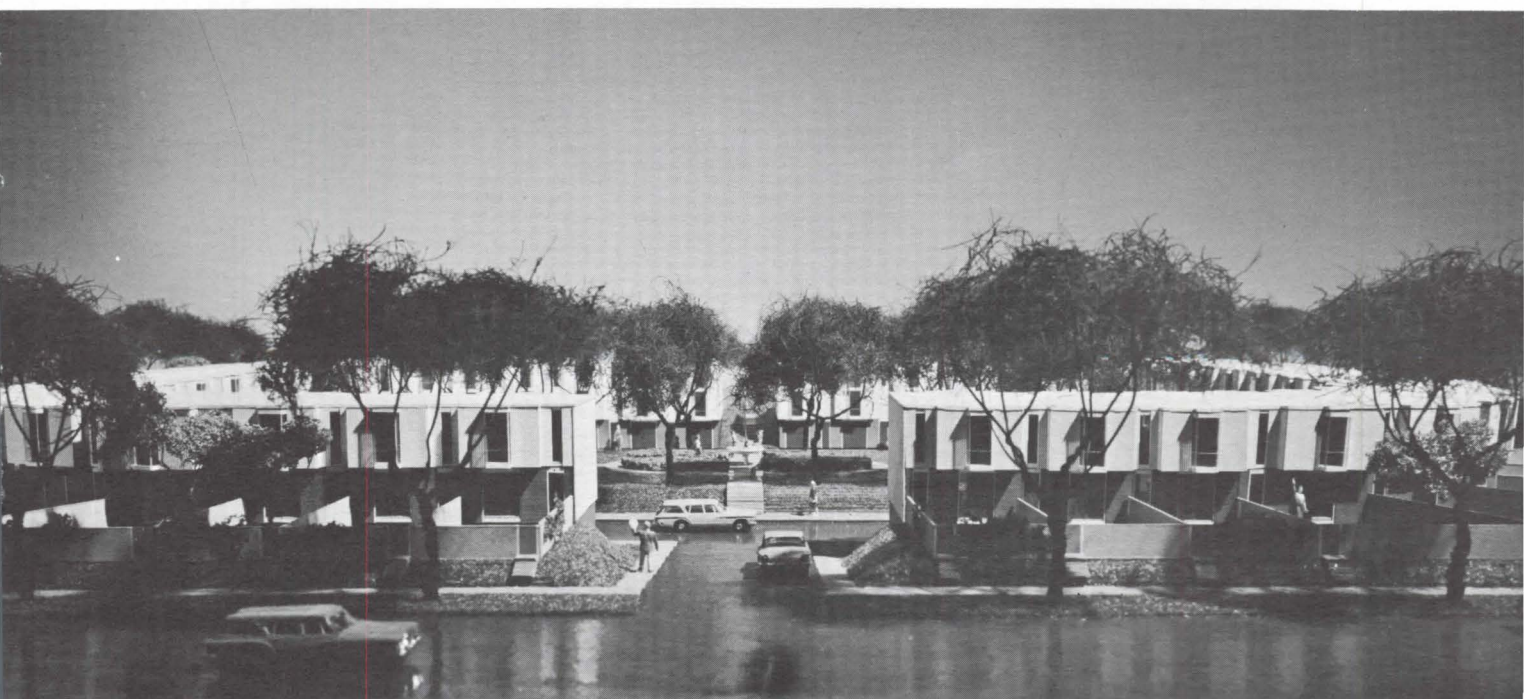


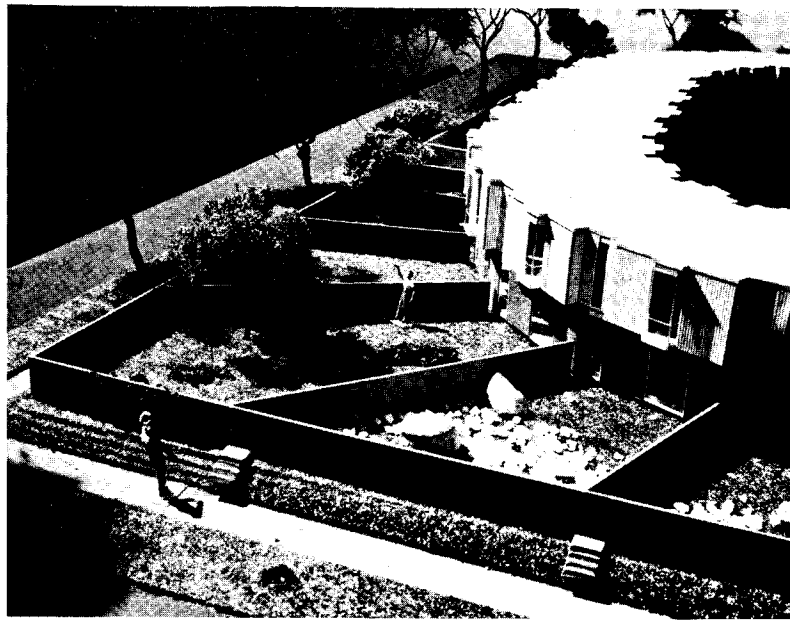
TYPICAL COURT ELEVATION



TYPICAL STREET ELEVATION

model photos: C. W. Ackerman



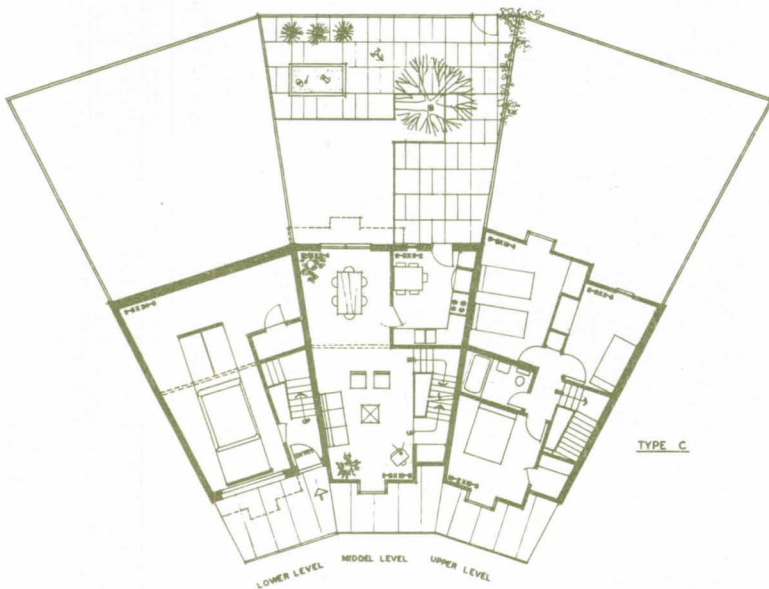




TYPE A



TYPE B



TYPE C

Library of the
Minneapolis School of Art



BEGROW



BROWN

CITATION

residential

BEGROW & BROWN
AND
STICKEL & MOODY,
ASSOCIATED ARCHITECTS
JACK BEGROW, DESIGN
JACK BROWN, DESIGN

Project: Beaumont Towers for Beaumont Company, Inc., Detroit, Michigan.

Site: The north section of the Gratiot Redevelopment area, close to downtown Detroit. The development forms a terminating point for the community's park mall, which will eventually extend to the edge of the Detroit River.

Program Requirements: To provide additional housing within the downtown area.

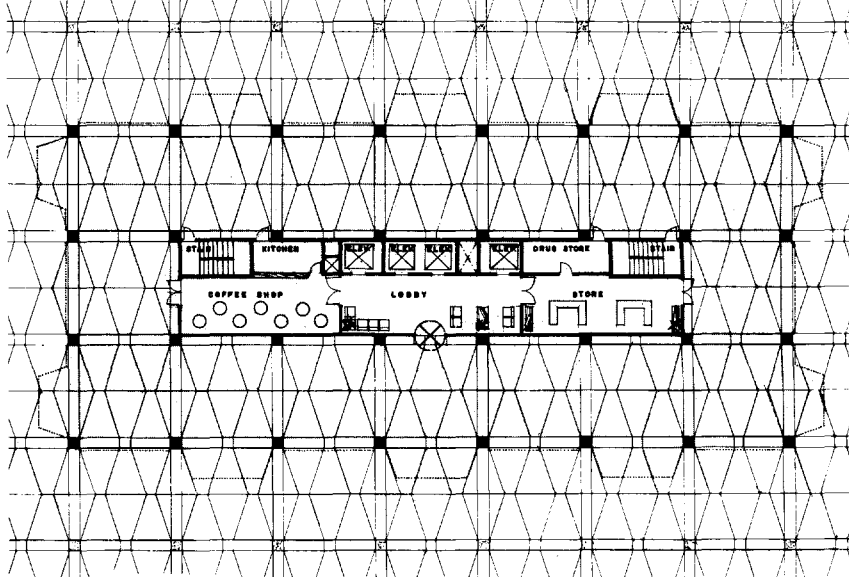
Design Solution: Three apartment towers: one to be thirty stories high, the other two of less dominant proportions. All of them are to rest on a raised pedestrian mall, which will also incorporate gardens, fountains, swimming pool, tennis and handball courts. Below the mall will be covered automobile entrances for the building's tenants and car parking spaces on two subsurface levels (see plans following pages). Distinguishing design feature of the apartment floors are the balconies, which will be included in almost all of the living units. Horizontally sliding windows will be installed at the outer edge of the balcony, permitting the space to be used in winter as well as summer. As a safety measure, a railing will be provided, and a continuous seat at the window line is to contain most of the necessary mechanical equipment. According to the architects, this also helps to "avoid the usual clutter that occurs in exposed balconies in the winter."

Construction Materials: Reinforced concrete frame with insulated, exposed-aggregate, concrete wall panels.

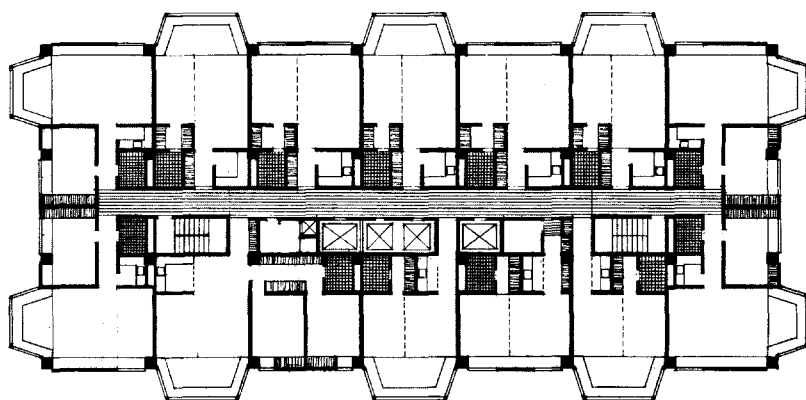
Jury Reaction: Though the entrances to the individual apartment units were considered tight, the major interior spaces were found to have good proportions and to be capable of being easily furnished. The jury considered the balcony solution ingenious and practical, and found the stacking of the floor-projections, as expressed on the exterior of the buildings, to be visually strong.





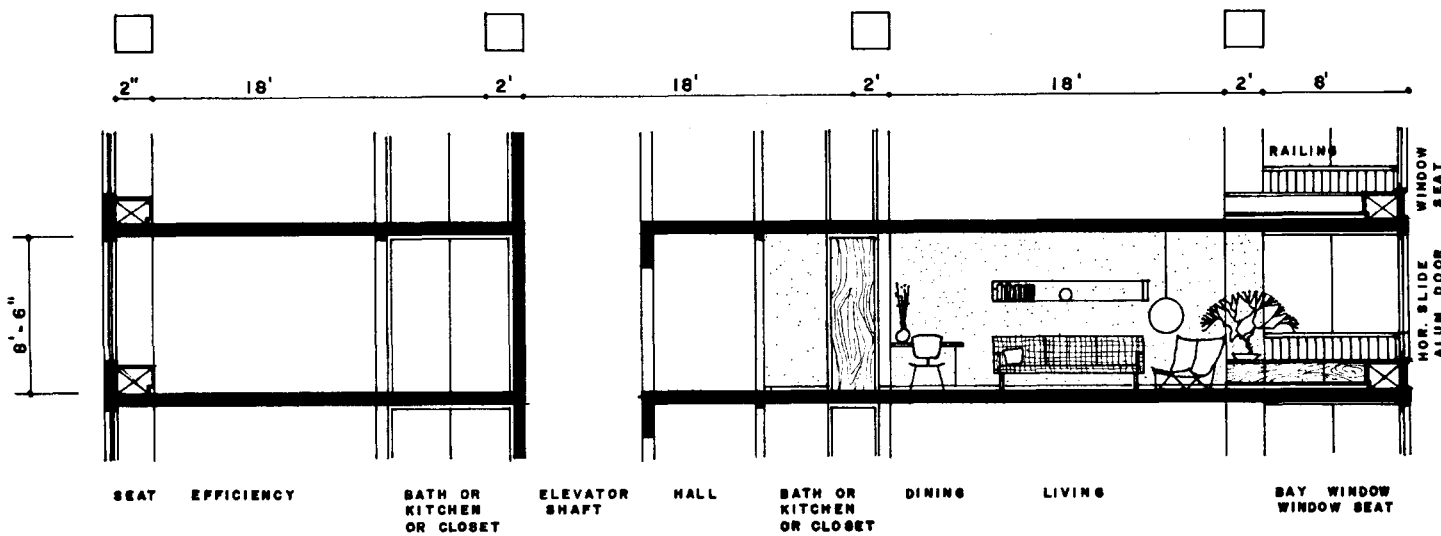


ground level

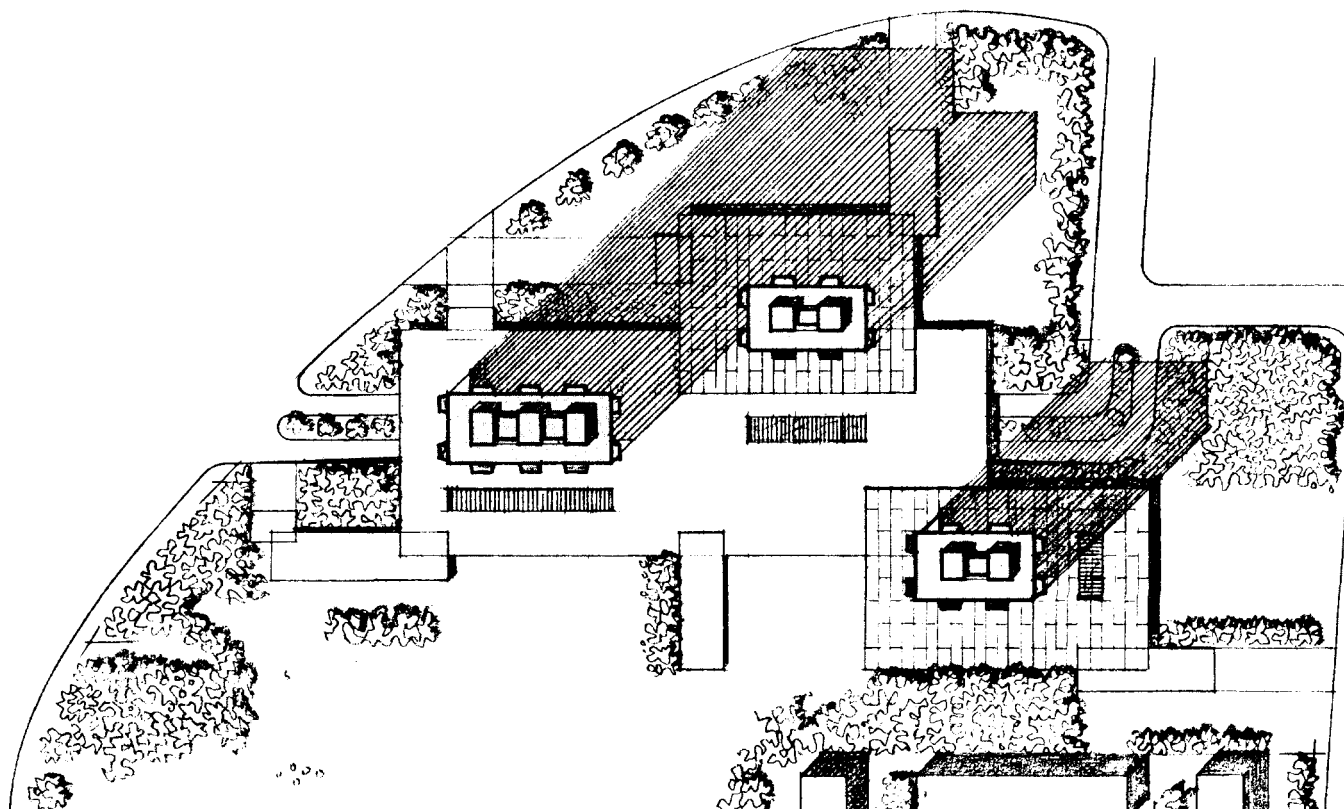
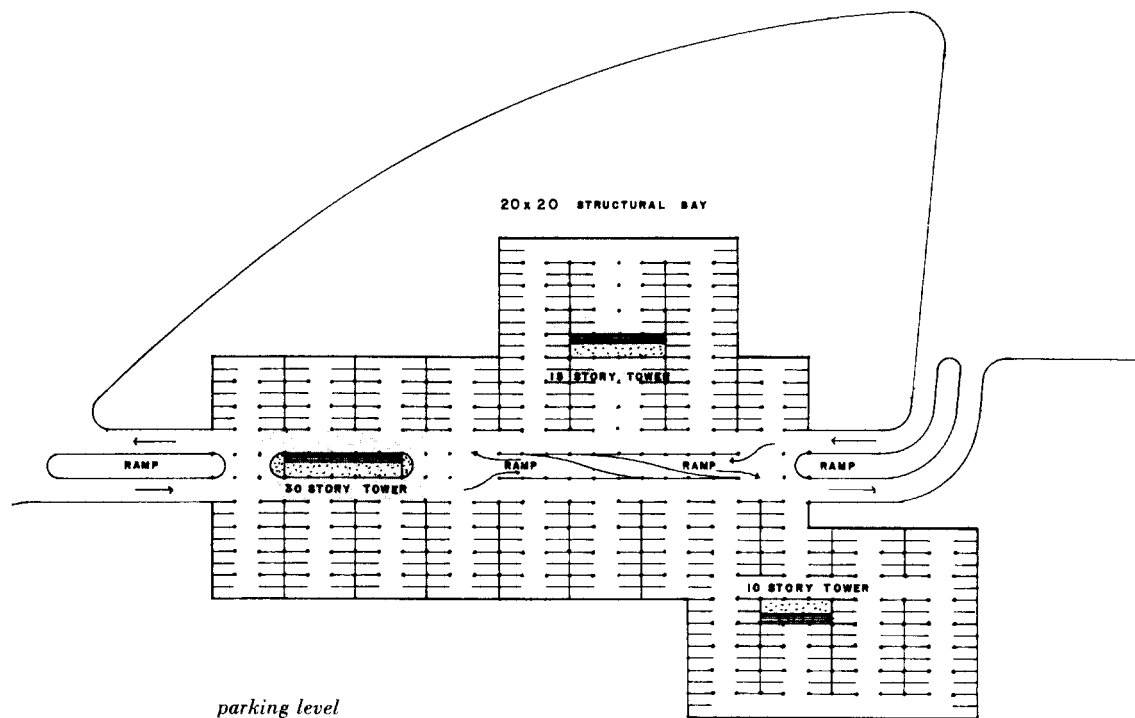


typical floor

MECHANICAL & ELECTRICAL - VERTICAL RISERS ONLY IN COLUMNS & WALLS



typical section





MOORE

CITATION

residential design

CHARLES W. MOORE,
ARCHITECT
DONALD KINGMAN, WILLIAM
TURNBULL, JOHN RIFENBERG,
RICHARD C. PETERS,
PROJECT ASSOCIATES

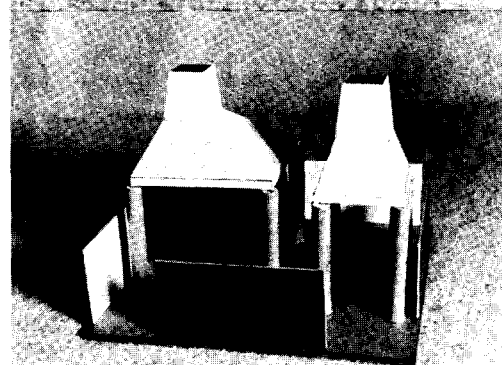
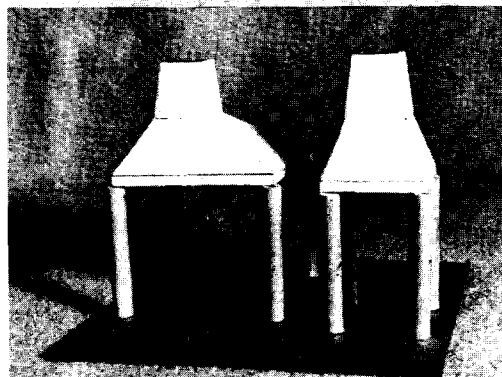
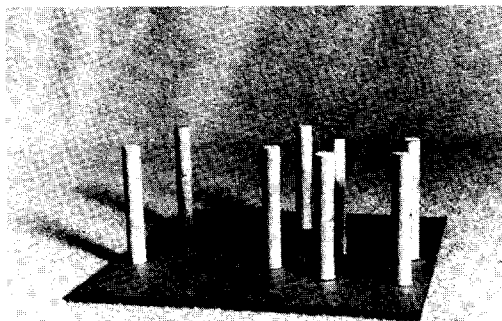
Project: House for Charles W. Moore, Orinda, California.

Site: "The site," writes the architect, "is an acre in one of the hot valleys just behind San Francisco Bay, handsomely studded with oaks and bay trees, which surround a grassy knoll reached by a grand sweep of drive around the head of a glen filled with ferns and more oaks."

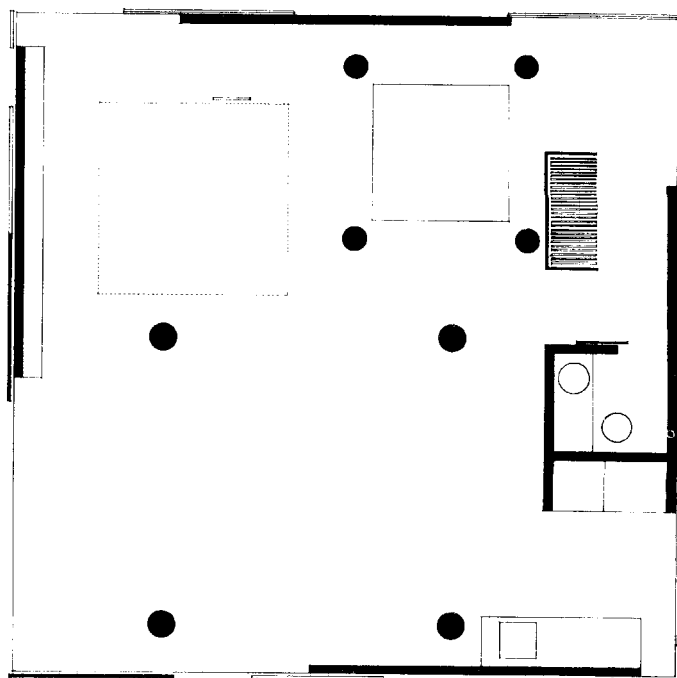
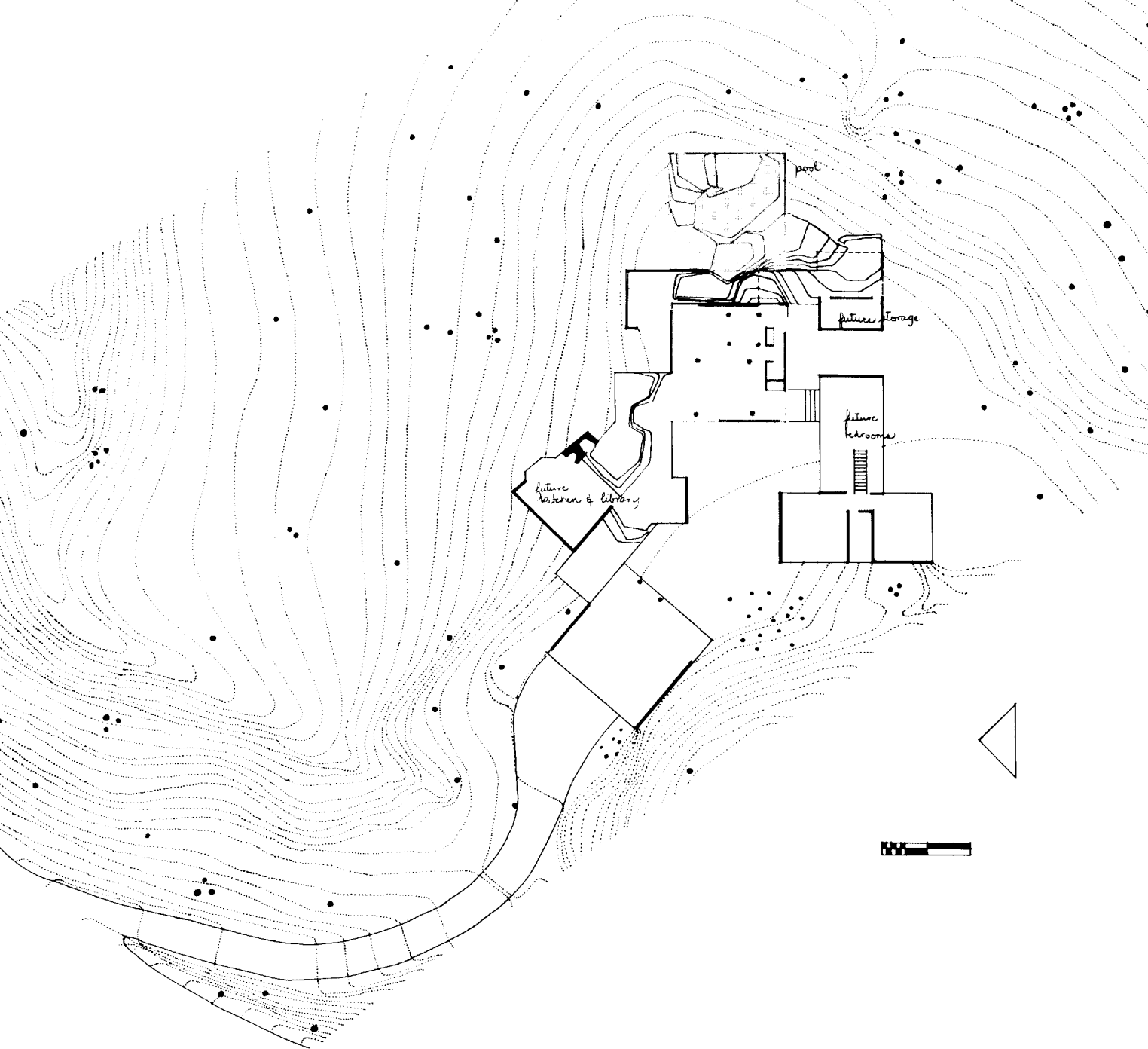
Program Requirements: "To design a bachelor house of minimum area (700 sq ft is the county requirement) and minimum cost, which would not violate the grandeur of the site, would sit nicely beside a swimming pool planned for the early future, and would preside over extensive additions in the more distant future."

Design Solution: "To insure against meanness or too small a scale," explains the architect, "a group of 10-ft-high Tuscan columns of solid fir, complete with entasis, were bought from a San Francisco demolition before design started. The final scheme uses eight of these, four around a skylit, white pyramidal dome which serves as focus for the living space; four describe a smaller square, with skylit, white pyramidal dome above a shower head, and a sunken tub below. An adjacent suspended platform will serve for sleeping."

Construction and Materials: Exterior walls will be of Texture 1-11 plywood. Sliding doors, using barn-door hardware, will be either glazed or of plywood. The floor is to be a concrete slab with rough

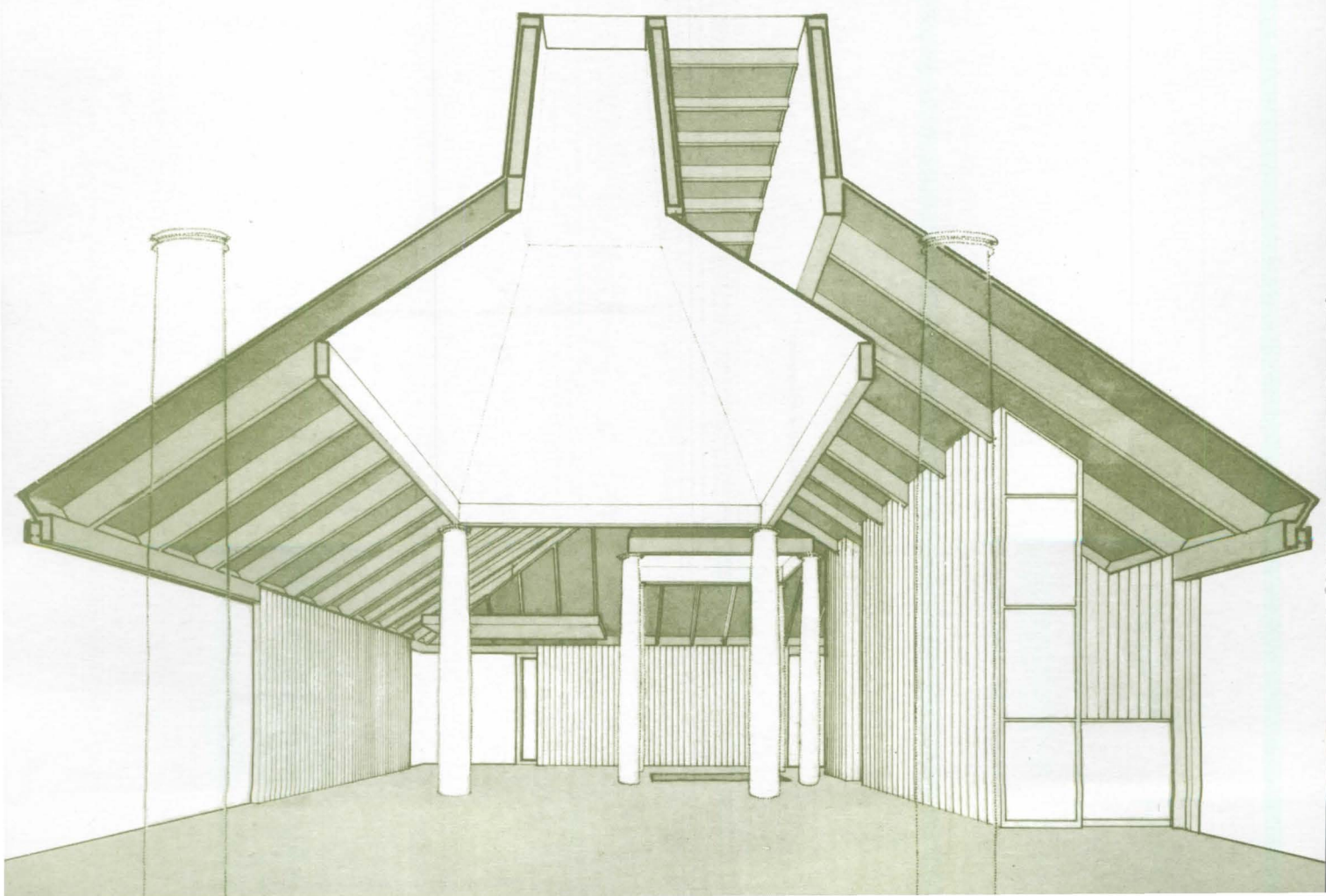


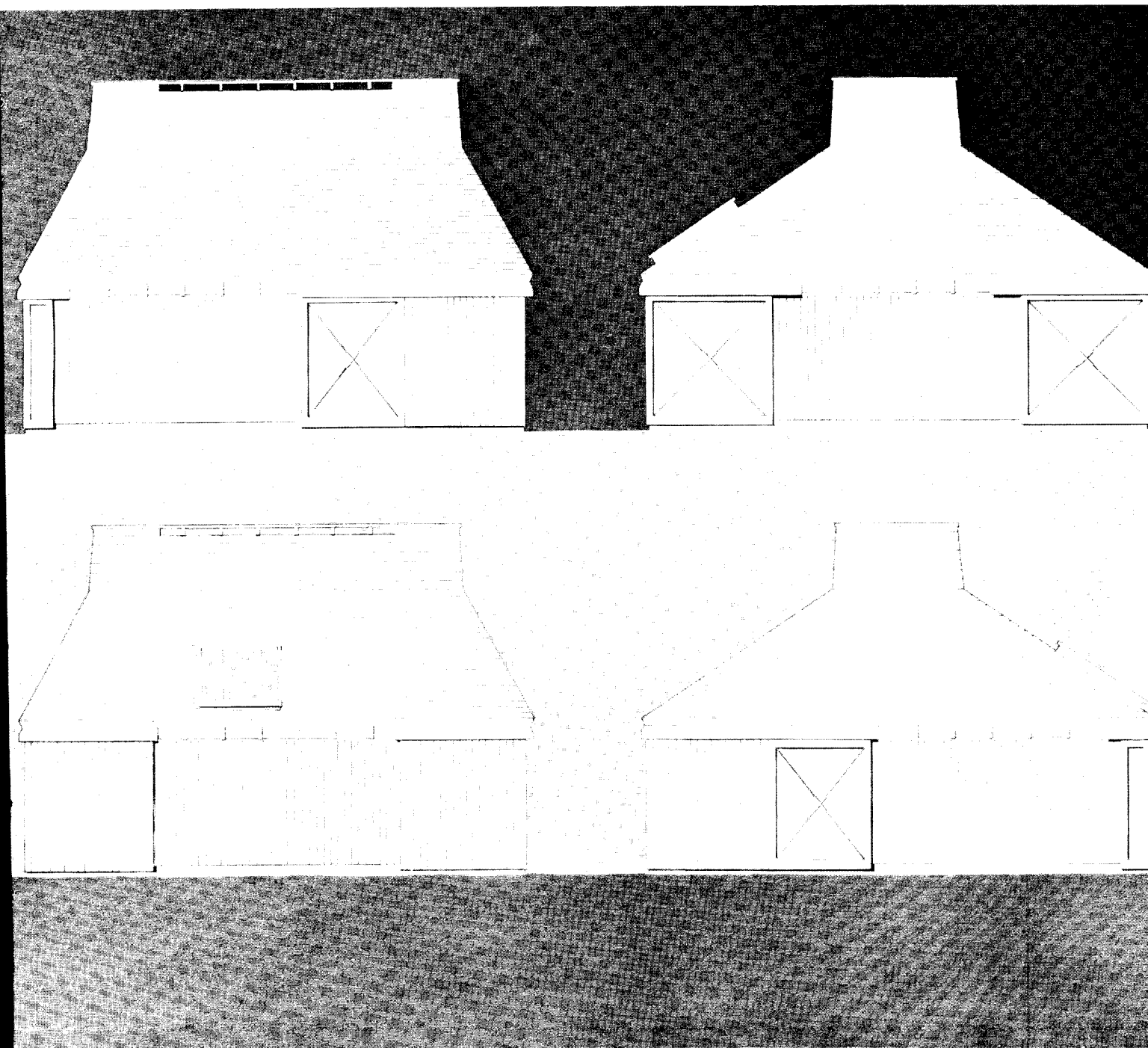
model photos: Glenn Pollock



aggregate, which may later become the base for terrazzo. Interiors will be wood-surfaced and painted shades of gray to control light coming into and around the pyramidal domes. Columns are to be painted in brilliant hues.

Jury Reaction: The jury debated at length the merits of three designs—all of them residences—by this architect. All three of them were found to have “commendable quality and character,” but the plans for his own house were judged to be “most consistent” in design. The Tuscan columns, the jury felt, were imaginatively employed, though one of the jurors suggested that “the plan has more to do with painting and graphic design than with architecture—there is something surrealist about it. But it is an interesting idea.”







FINKLE

CITATION

residential design

ROBERT MELIK FINKLE.
DESIGNER

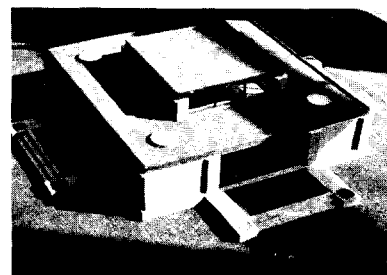
Project: Country House for Henry J. Heymann, Connecticut.

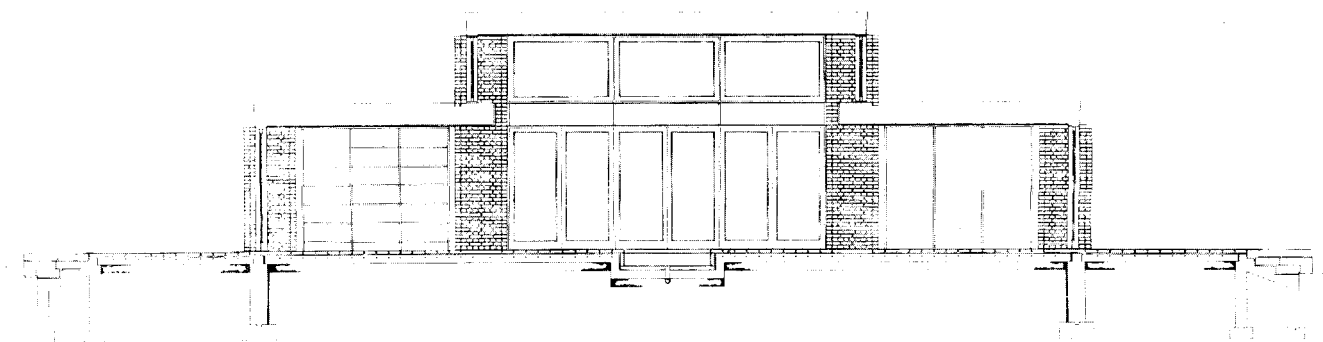
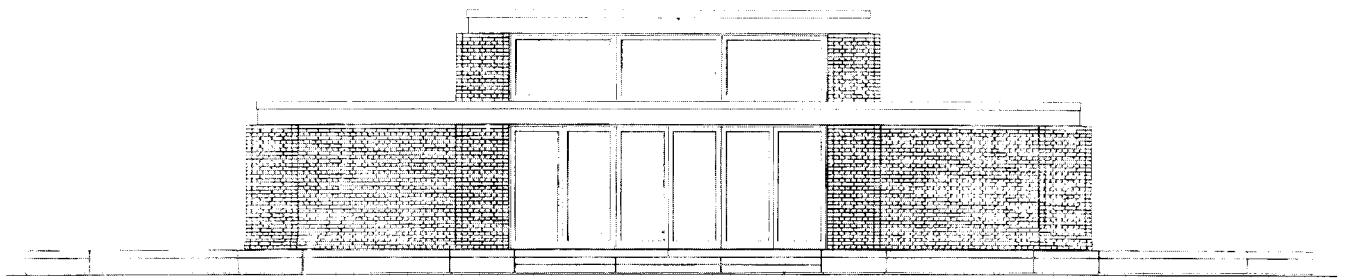
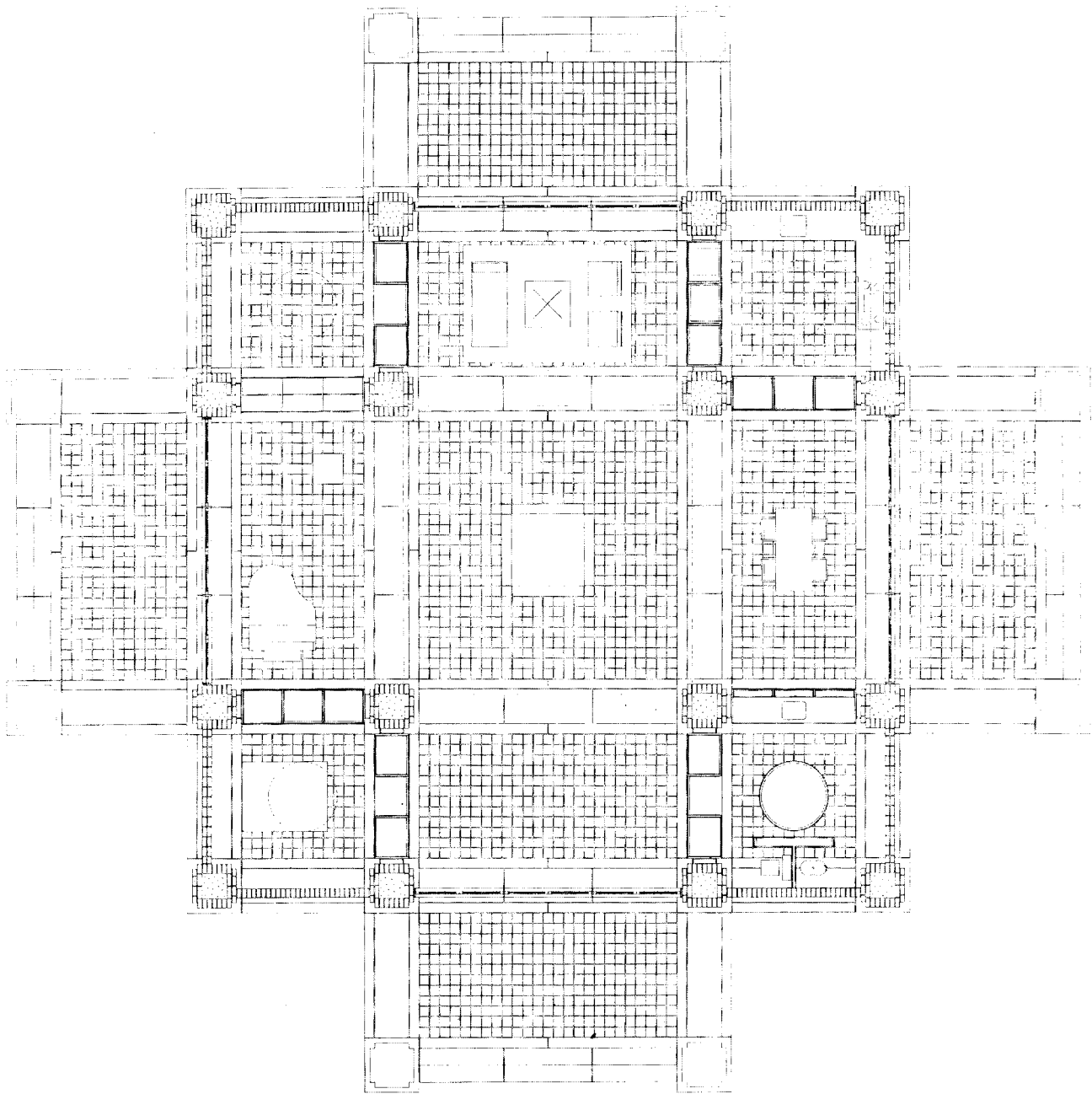
Program Requirements: A country retreat, a home for relaxation and study, as well as an appropriate setting for large-scale, formal entertainment for a young stage designer of the theater.

Design Solution: According to the designer of the house, the main element of the plan is the "large central, cruciform space, devoted to the various social functions, framed and served by segregated units of a more private nature."

Construction and Materials: Standard post-and-beam construction will be used throughout. Finkle suggests, however, that "the size, number, and placement of the 16 great columns are here determined more by aesthetic considerations than by the dictates of stress; while supporting the roof, the columns exist also as important sculptural and space-modulating forms." Three major materials will be used: brick, for its "succinct pattern"; steel, as a "felicitous counterpoint" to brick; and granite, since "it has the gravity to initiate and conclude the courses of brick along the walls, and the levity to join in making patterns with brick along the floor."

Jury Reaction: The jury was divided over this formal, classical plan. On the one hand, it was considered to be "a very clear statement of a fundamental parti," and on the other hand, as "a purely formal exercise." One juror suggested that the solution "is not really distinguished in terms of its development of the idea, because it is executed too heavy-handedly"; to which another juror countered, "I responded to the heaviness; there is an insistent heaviness, which, I think, is well done." In total, the jury commended the consistency and unity of design, structure, and materials.







DAVIS



BRODY



WISNIEWSKI

AWARD

religion

DAVIS, BRODY & WISNIEWSKI,
ARCHITECTS

Project: Cemetery for Beth Israel Memorial Center, Woodbridge, New Jersey.

Site: Four acres that rise upward from the access street, enabling the architects to establish various cemetery gardens by the shaping of levels and retaining walls.

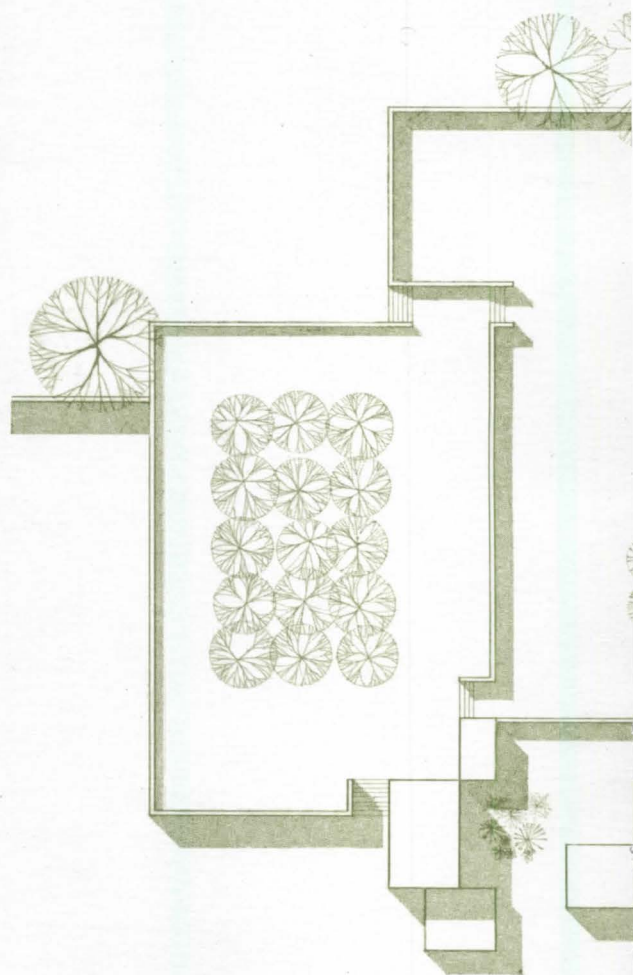
Program Requirements: To develop the four-acre site as a memorial park; to provide in the design for crypts and burial areas; and to plan a museum-chapel as the nucleus of the development.

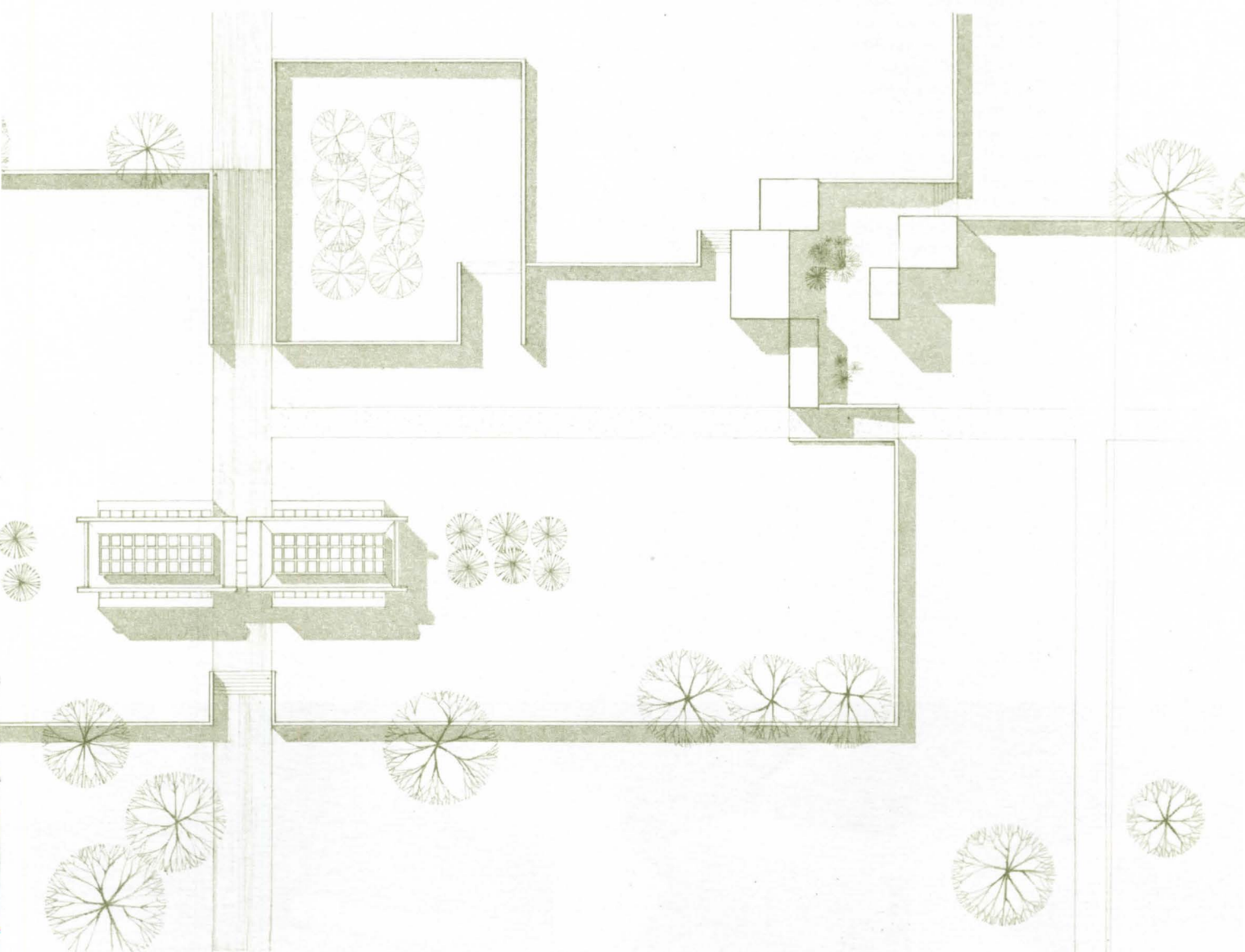
Design Solution: "The atmosphere," explain the architects, "should not be foreboding, but one that will be conducive to family visits, where the immediate bereaved can be alone for private meditation, and the other members of the family can be in a parklike environment."

The crypts are to be varied in height, widths, and depths within a uniform component system. They have been arranged around a garden in such a way that "they now have sculptural significance." The walls encircling the crypts are to be of the same material as the other retaining walls.

In the burial areas, a departure is suggested from the use of the standard, vertically set headstone in that bronze tablets will be laid flush with the ground, to preserve the parklike quality of the area.

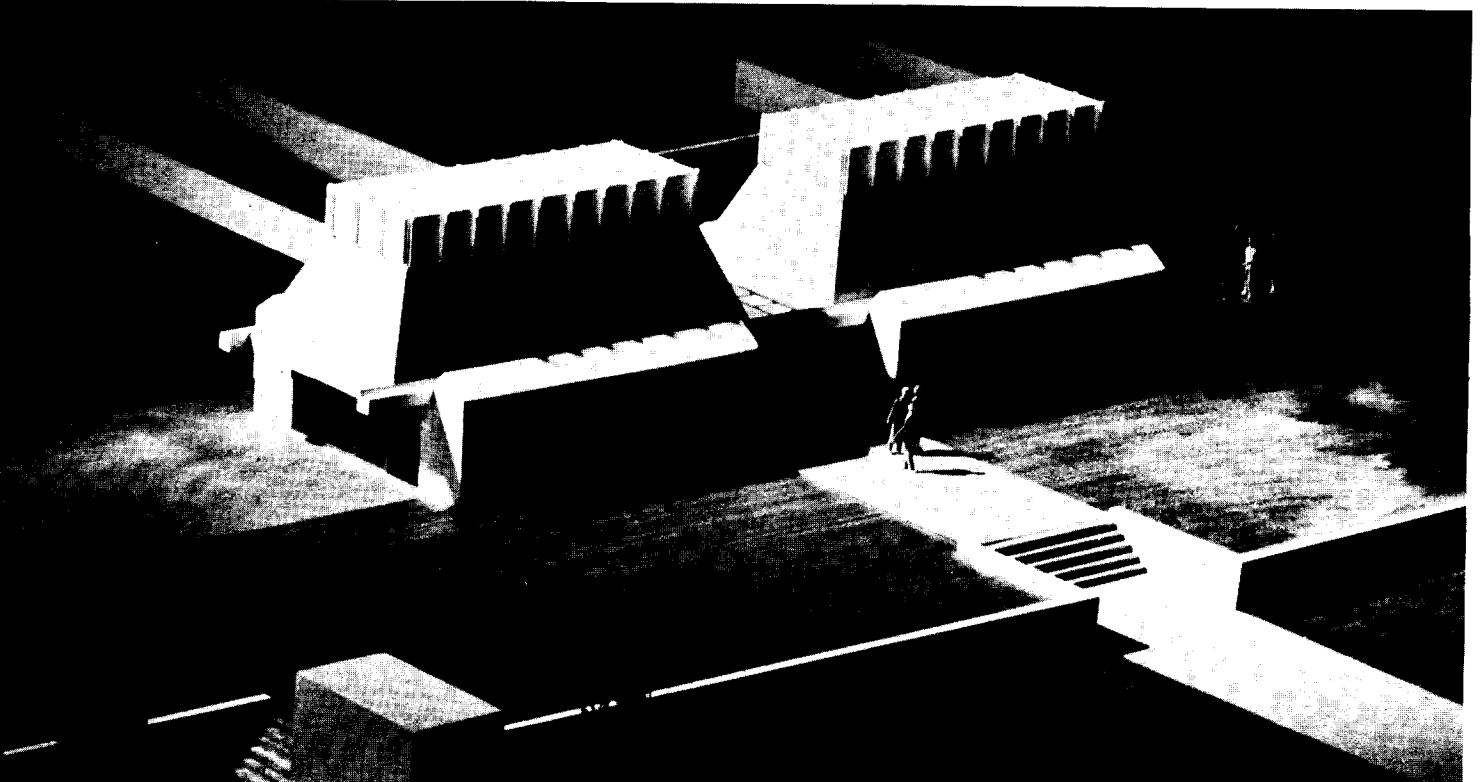
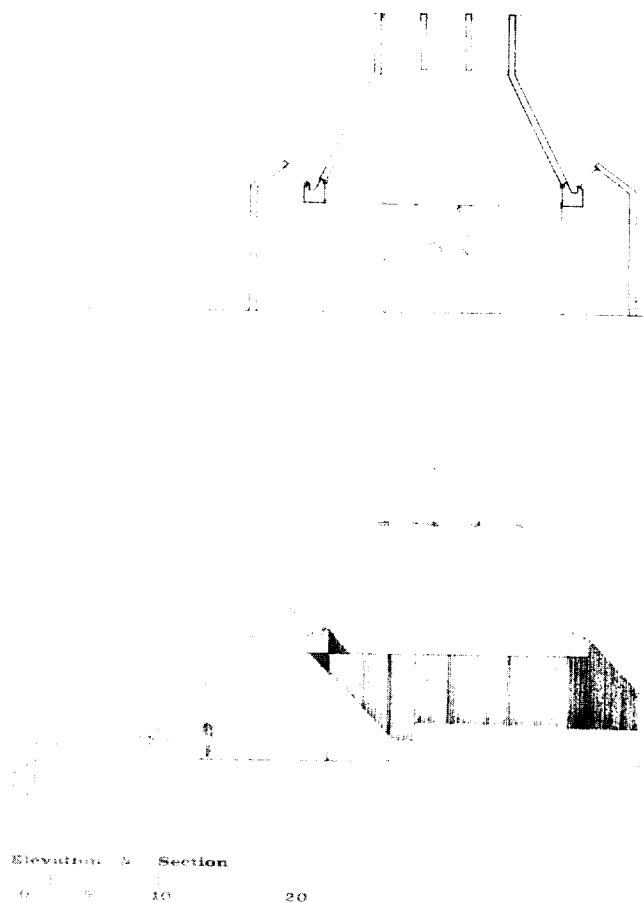
The museum-chapel, located at the axis of the memorial park (site plan, right), is composed of two identical building elements joined by a common entrance hall. To one side is the museum,

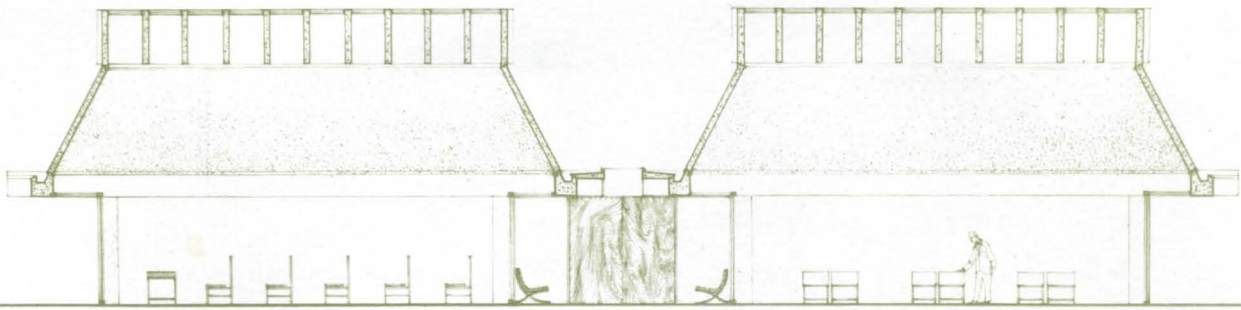




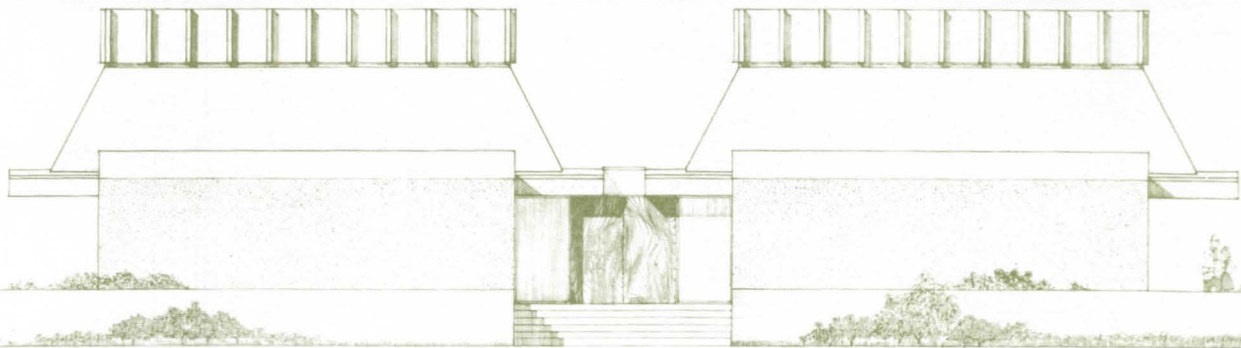
in which biblical objects from the Metropolitan Museum of Art are to be displayed. On the opposite side is the meditation chapel, furnished with several rows of chairs, as well as displays of ancient objects.

Construction and Materials: The museum-chapel is to be built of reinforced concrete members (see assembly drawing following page). The main elements of the assembly are the piers and side-walls, the beams, the truncated pyramid roof, and the light baffle. The beams, resting on the piers, will support the roof as well as the ceiling baffle. These beams serve a further function as troughs, which will carry rain water to the extremities of the building. The thrust created by the pyramid roof is to be taken by the exterior masonry walls and the abutting piers. The angle of the exterior wall (see cross-section, above) is designed to direct daylight into the museum and chapel interiors. Light entering through these continuous openings will illuminate the display cases affixed to the walls below. The concrete ceiling

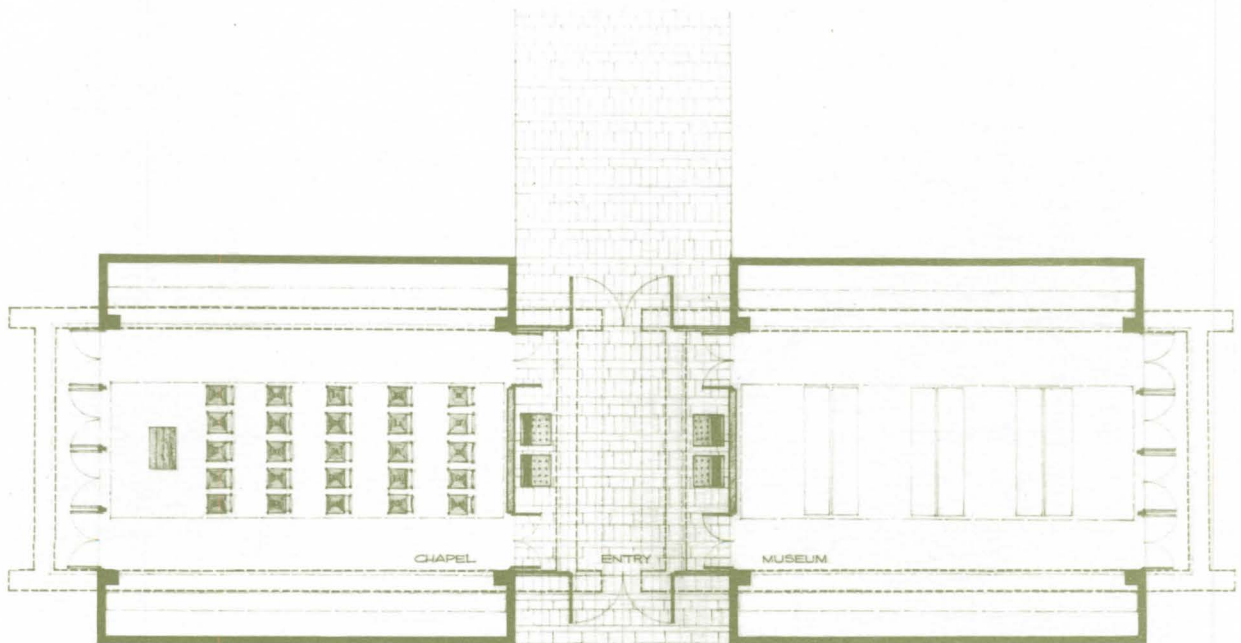




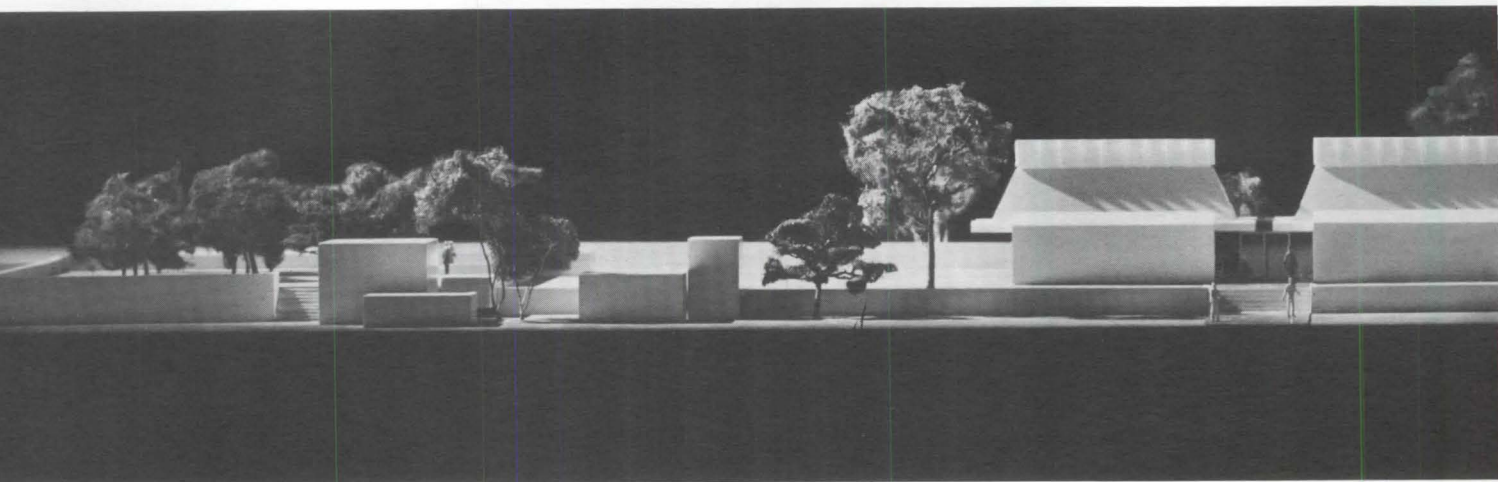
Section



Elevation

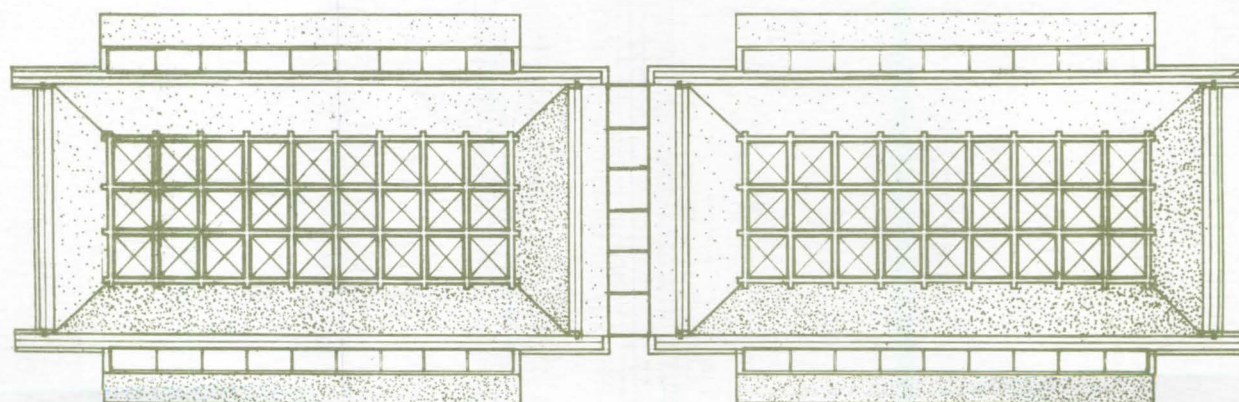


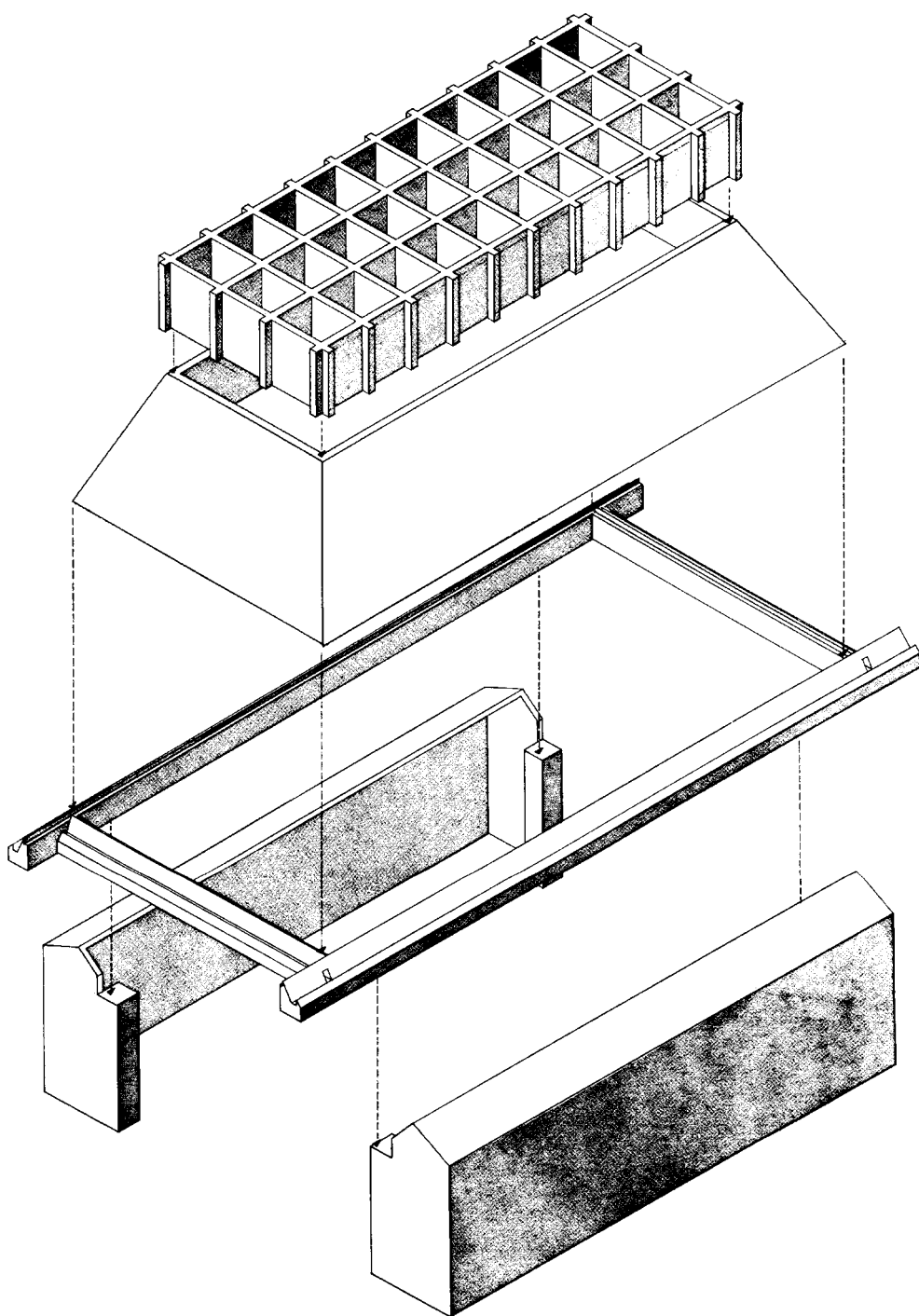
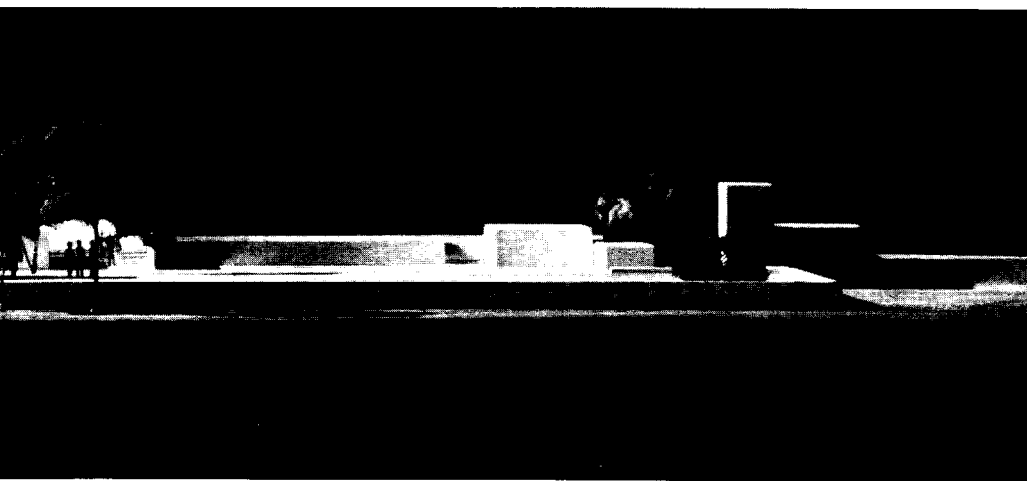
Plan



baffle will serve to trap and diffuse light, so that the central areas will also be evenly illuminated.

Jury Reaction: This project was unanimously endorsed by the jury for these reasons: (1) its sensitive site plan development, achieving, through the manipulation of levels and enclosing walls, a series of varied, well-related and sculptural spaces; (2) the excellent relationship of architectural elements to exterior spaces; (3) the general planning of the museum-chapel, and, in particular, the ingenuity of the structural assembly (right).







LANE



GAMBLE



WOODWARD

CITATION

health

LANE, GAMBLE & ASSOCIATES,
ARCHITECTS-ENGINEERS
THOMAS E. WOODWARD,
PROJECT MANAGER
WILLIAM K. HALL & ASSOCIATES,
MECHANICAL ENGINEER
J. BURWELL HARRISON,
NURSING HOME CONSULTANT

Project: The Leaves, Inc., a nursing home for Christian Scientists.

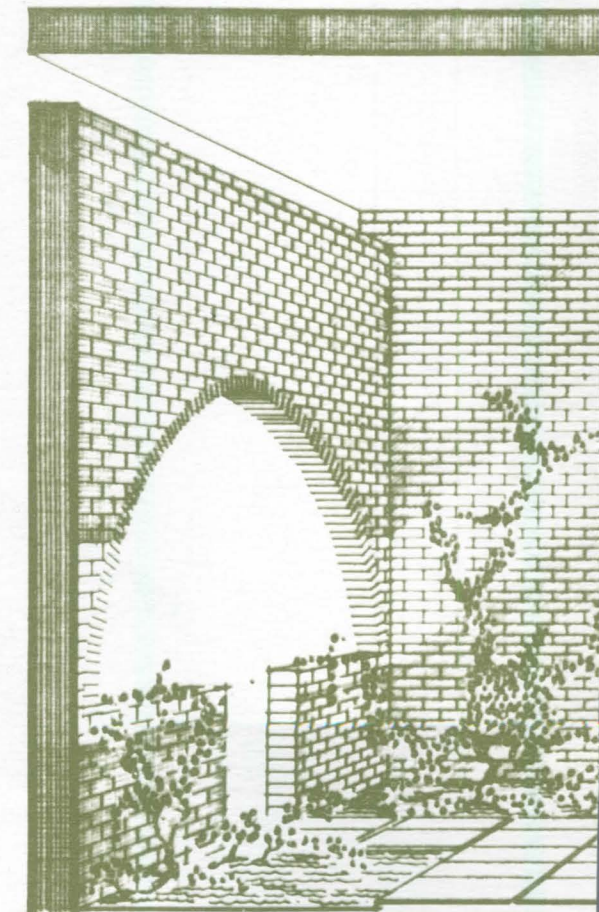
Site: Dallas, Texas.

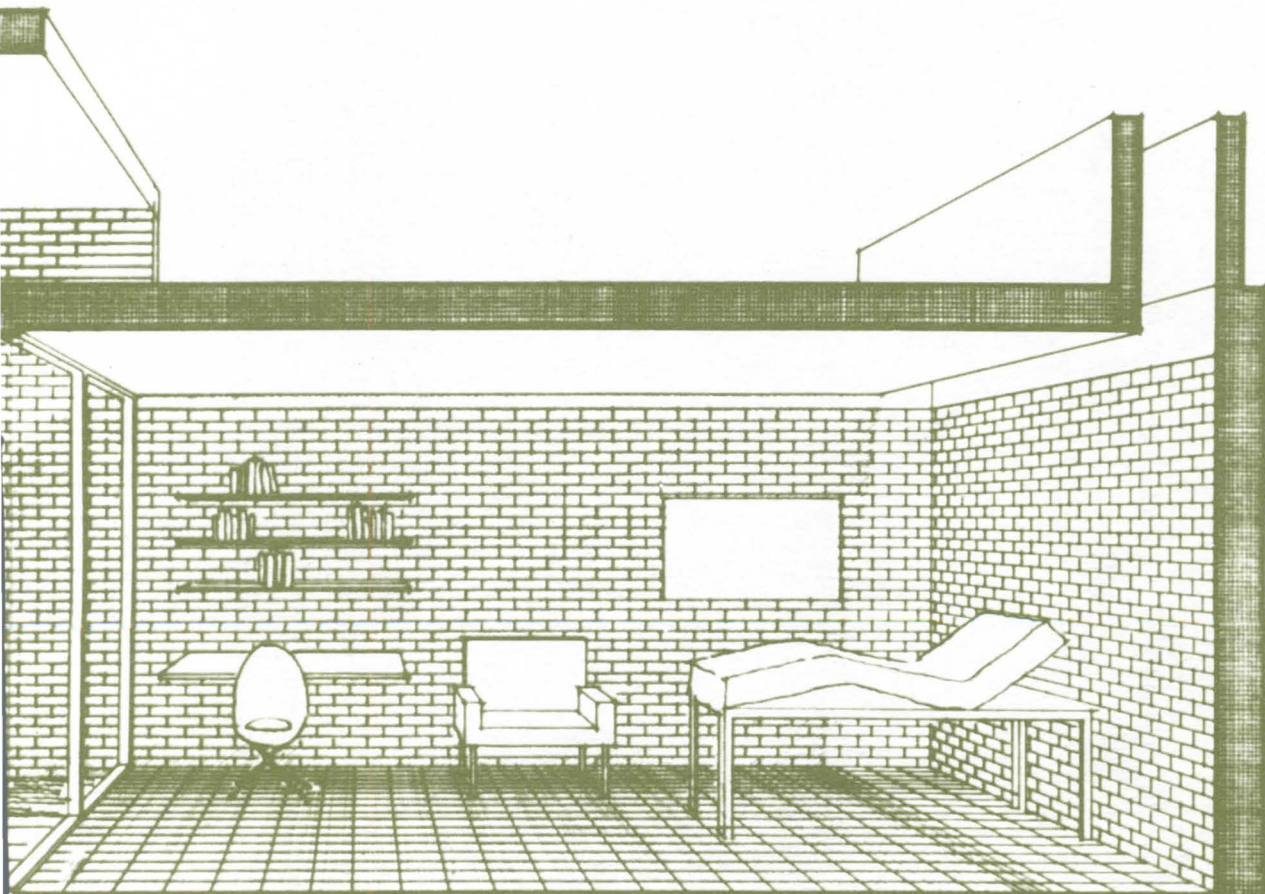
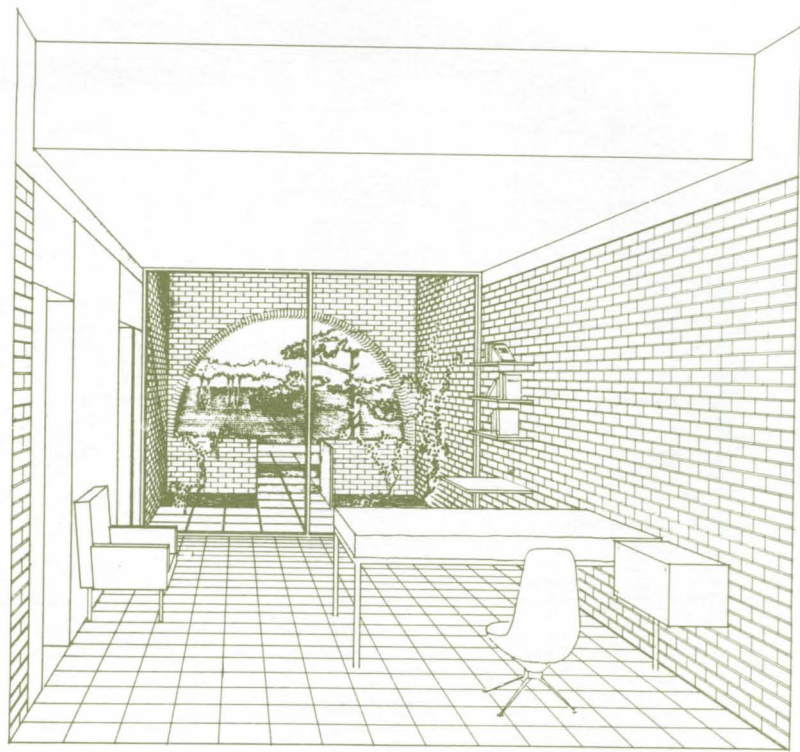
Program Requirements: "To provide a place," it is noted in the program, "where students of Christian Science can receive nursing care while relying on spiritual means for healing." Specifically to be provided are: 16 individual patient rooms, 2 nurses stations, a dining room primarily for staff use, and administrative and storage facilities.

Design Solution: A compact symmetrical plan having along its central axis two open-air courts. These are flanked by service corridors and nurses stations to either side, and two rows of patient rooms. Flexible storage units within the corridor space will allow the staff to circulate freely without disturbing the patients' privacy.

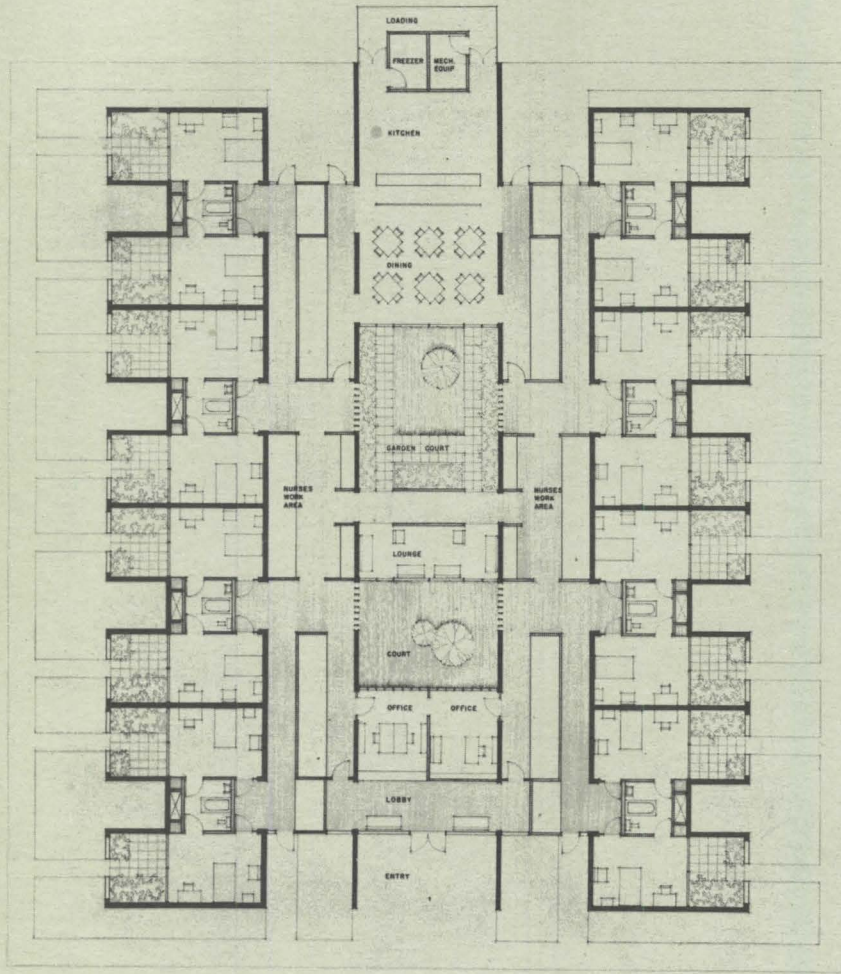
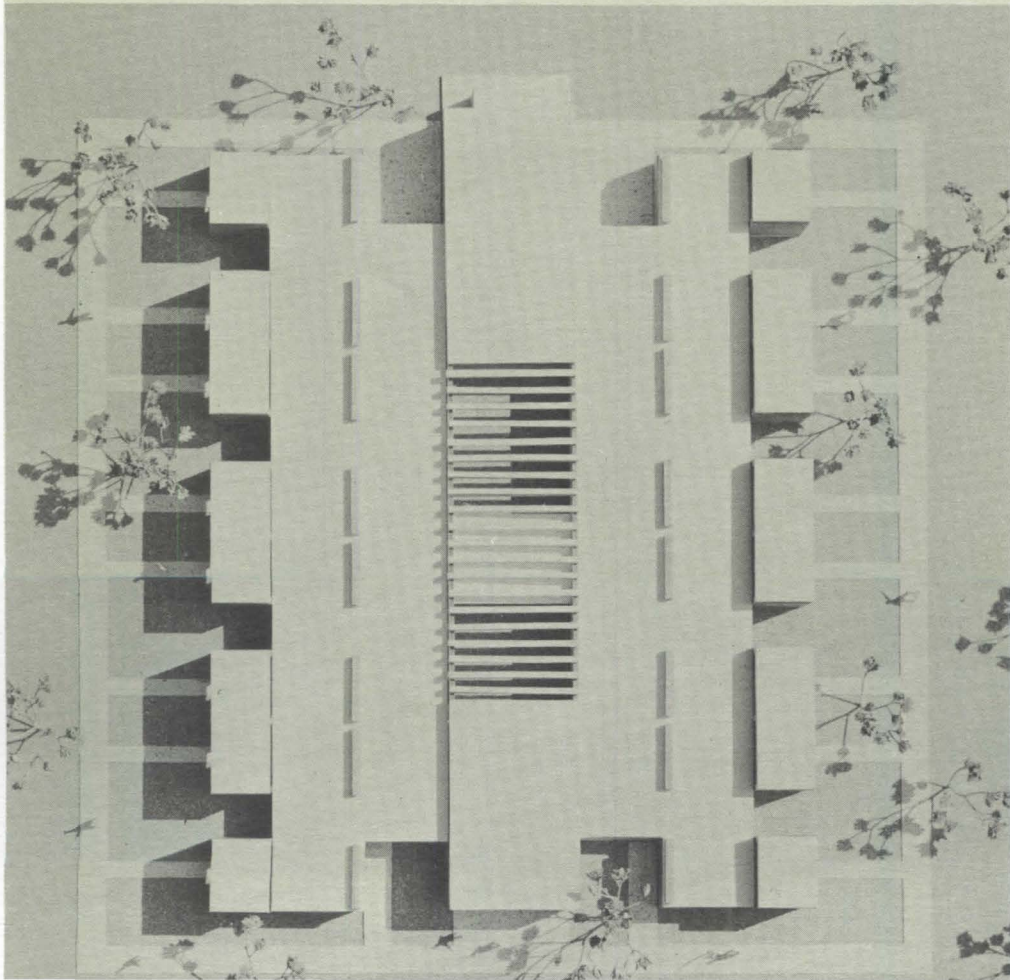
Natural light was considered to be an important design element. "The private garden or 'light court' for each individual room," explain the architects, "is a transitional space between the bright and sometimes unfriendly Texas sun and the protection of the interior. It is a 'tree' outside each room that softens and filters the light, reduces the glare from the sky, and is a link between the bright and the soft, between the greater and the lesser. The continuation of the walls beyond the line of vision will tend to draw one up toward the light. Not being able to see the termination of these walls (at least from most points in the room) will suggest spaciousness rather than the finite 'closed-inness' a room could have.

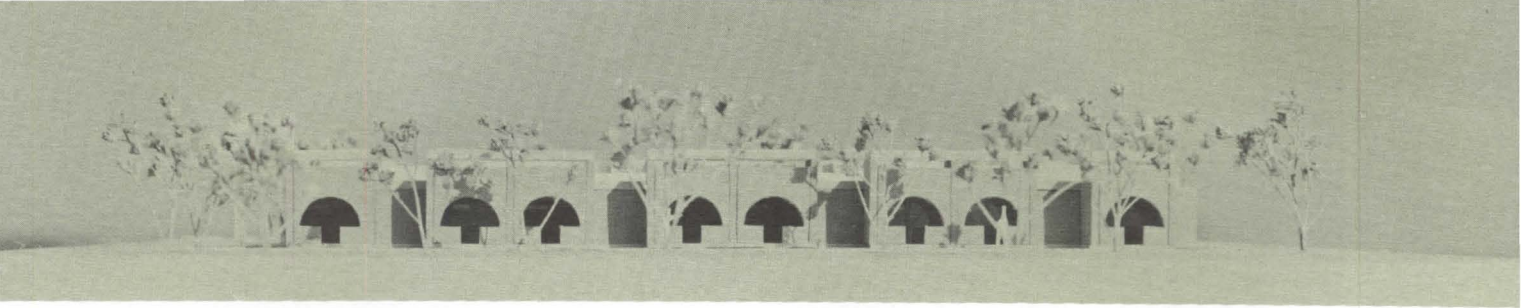
"The court also provides a place where a small amount of landscaping will, to the eye, landscape the whole horizon. This is useful where natural landscaping





model and drawings: Thomas E. Woodward



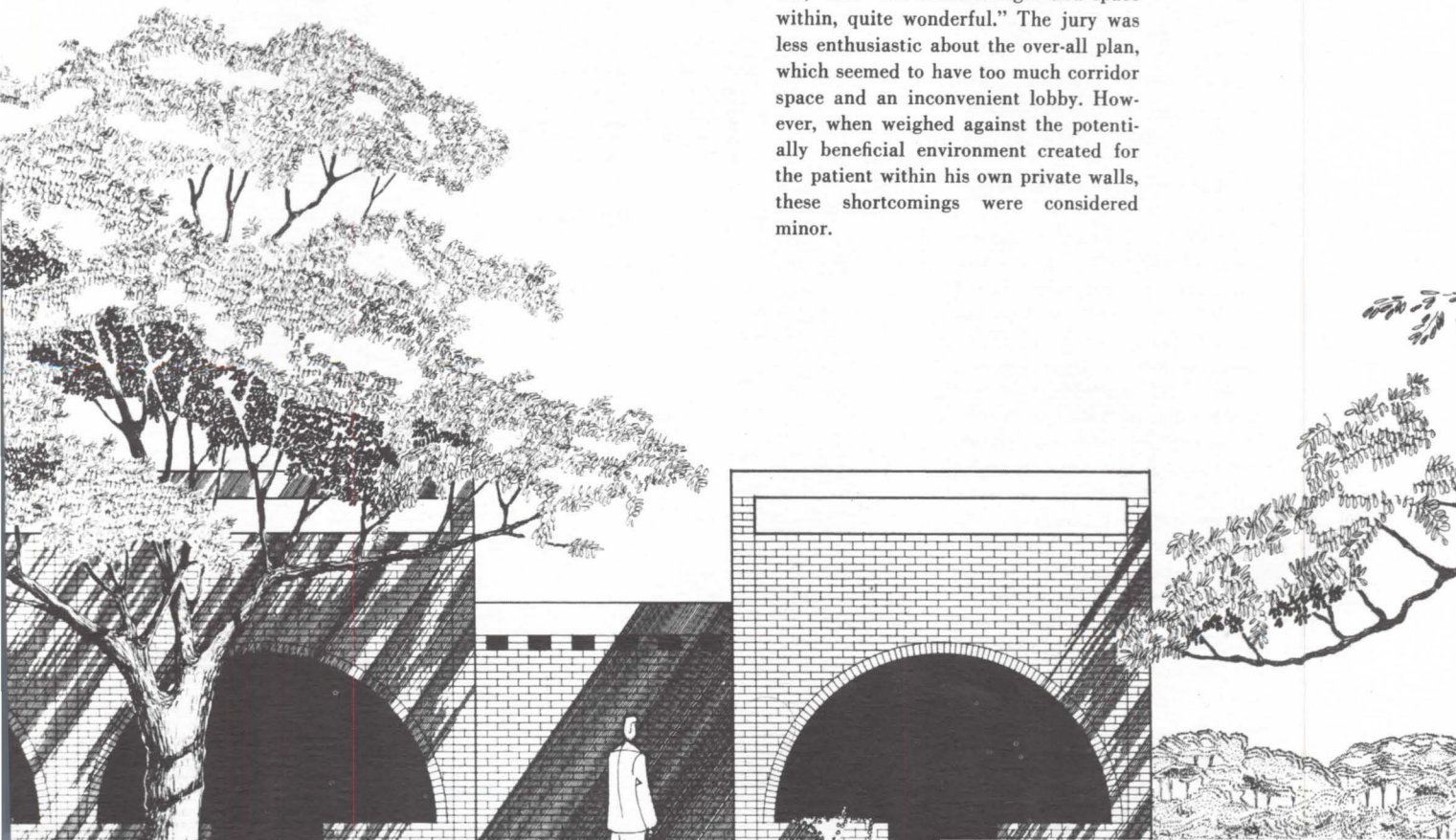


is lacking and maintenance funds are limited. Thus the meaning and significance of the court as an inseparable part of the individual room goes beyond the use it will obviously get as a private garden in which the patient may sit.

"The diffusing 'light chimney' achieves a soft wash of light on the unbroken rear wall of the room, which is a counterpoint to the brighter, more articulate light of the court."

Construction and Materials: Brick bearing walls were selected for favorable sound isolation qualities, to meet fire code requirements, and to insure against high maintenance costs. "Use of the brick to achieve the 'sun visor' in the private courts," explain the architects, "led logically to an arch form." Precast concrete slabs, surfaced with acoustical plaster, will be employed in the roof construction. To facilitate future changes in mechanical equipment, the baths and individual air handling units are to be housed in nonstructural wood partitions.

Jury Reaction: The significant contribution in this proposal, the jury believed, rested in the design of the patient's individual room and garden. These units, they felt, were "very carefully thought out," and "the sense of light and space within, quite wonderful." The jury was less enthusiastic about the over-all plan, which seemed to have too much corridor space and an inconvenient lobby. However, when weighed against the potentially beneficial environment created for the patient within his own private walls, these shortcomings were considered minor.





AMISANO

CITATION

education

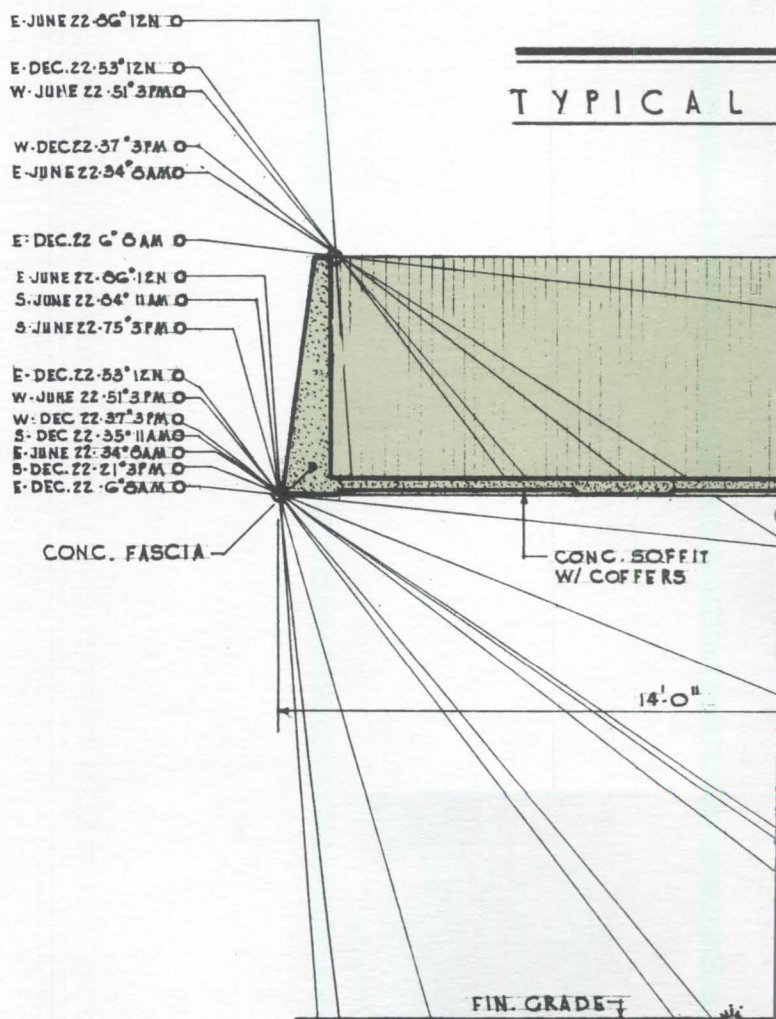
TOOMBS, AMISANO & WELLS,
ARCHITECTS-ENGINEERS
JOSEPH AMISANO,
PARTNER IN CHARGE
H. BOYER MARX & ASSOCIATES,
LANDSCAPE ARCHITECTS
CHASTAIN & TINDEL,
STRUCTURAL ENGINEERS
J. E. GUERRERO,
MECHANICAL ENGINEER
BOLT, BERANEK & NEWMAN,
ACOUSTICS CONSULTANTS

Project: Harper High School for Board of Education, City of Atlanta, Georgia.
Site: An 18.11-acre site, of which 13.34 acres are to be taken up by Harper High School, 4.77 acres by a future elementary school.

Program Requirements: Sixteen classrooms, library, reading room, arts-and-crafts rooms, music rooms, 6 science rooms, home economics section, shops, business classrooms, 2 gymnasias, administrative offices, language laboratory, 250-seat theater, student store and meeting room, demonstration area and adjunct facilities.

Design Solution: A compact, square, bilevel plan in which all of the teaching spaces, the library, auditorium, and administrative offices are on one floor, providing interrelated areas with contiguous circulation. Central to these teaching spaces will be a large space, dropped slightly below the main floor level. This area will be used for meetings, exhibits, or demonstrations. All noise-producing activities, such as those in gymnasias, locker rooms, cafeteria, music rooms, etc., have been set apart on the lower level.

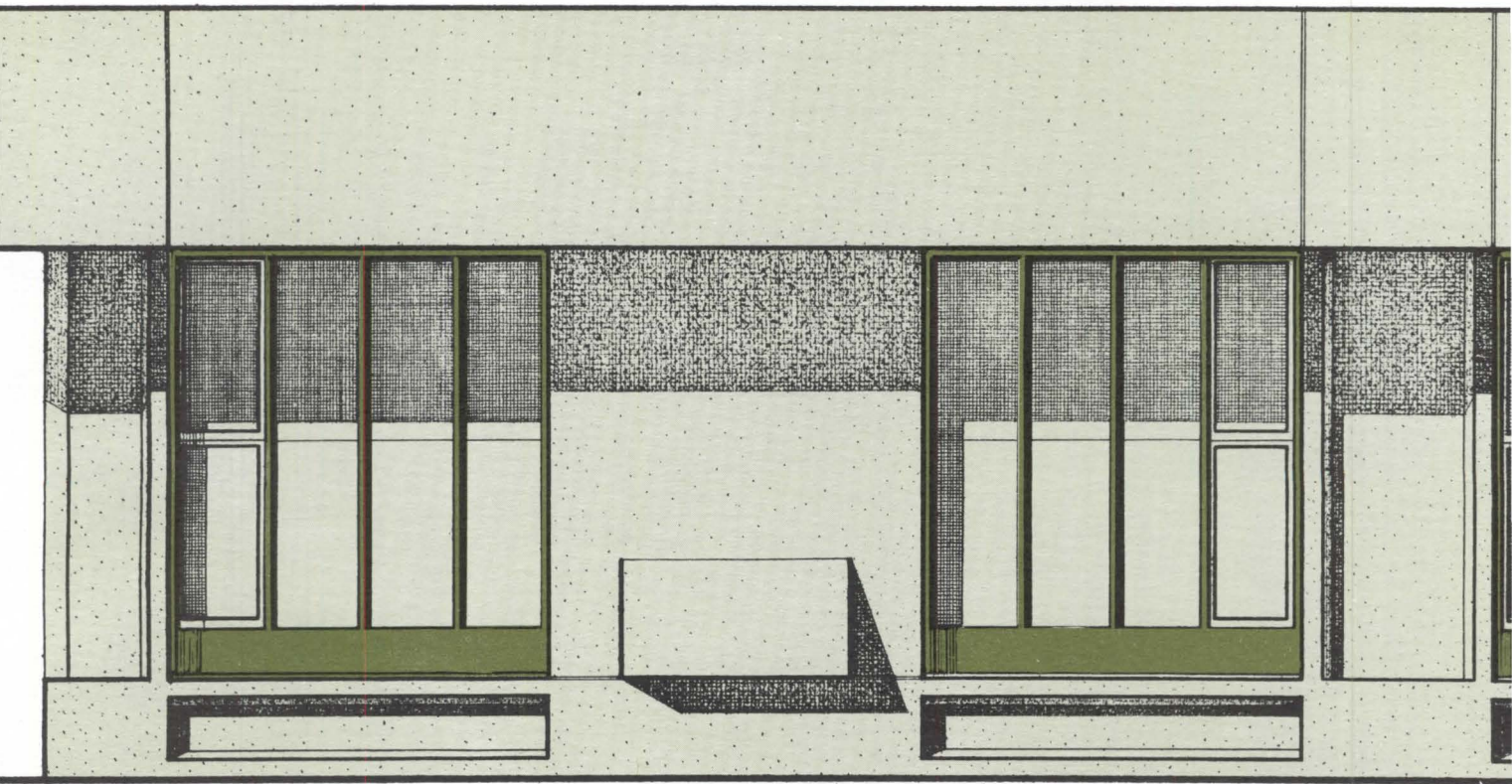
Choice of the compact plan versus the more loosely woven, open-finger plan was made on the basis of the following considerations: (1) a more economical and far more efficient plan shape could be developed if conventional sources for



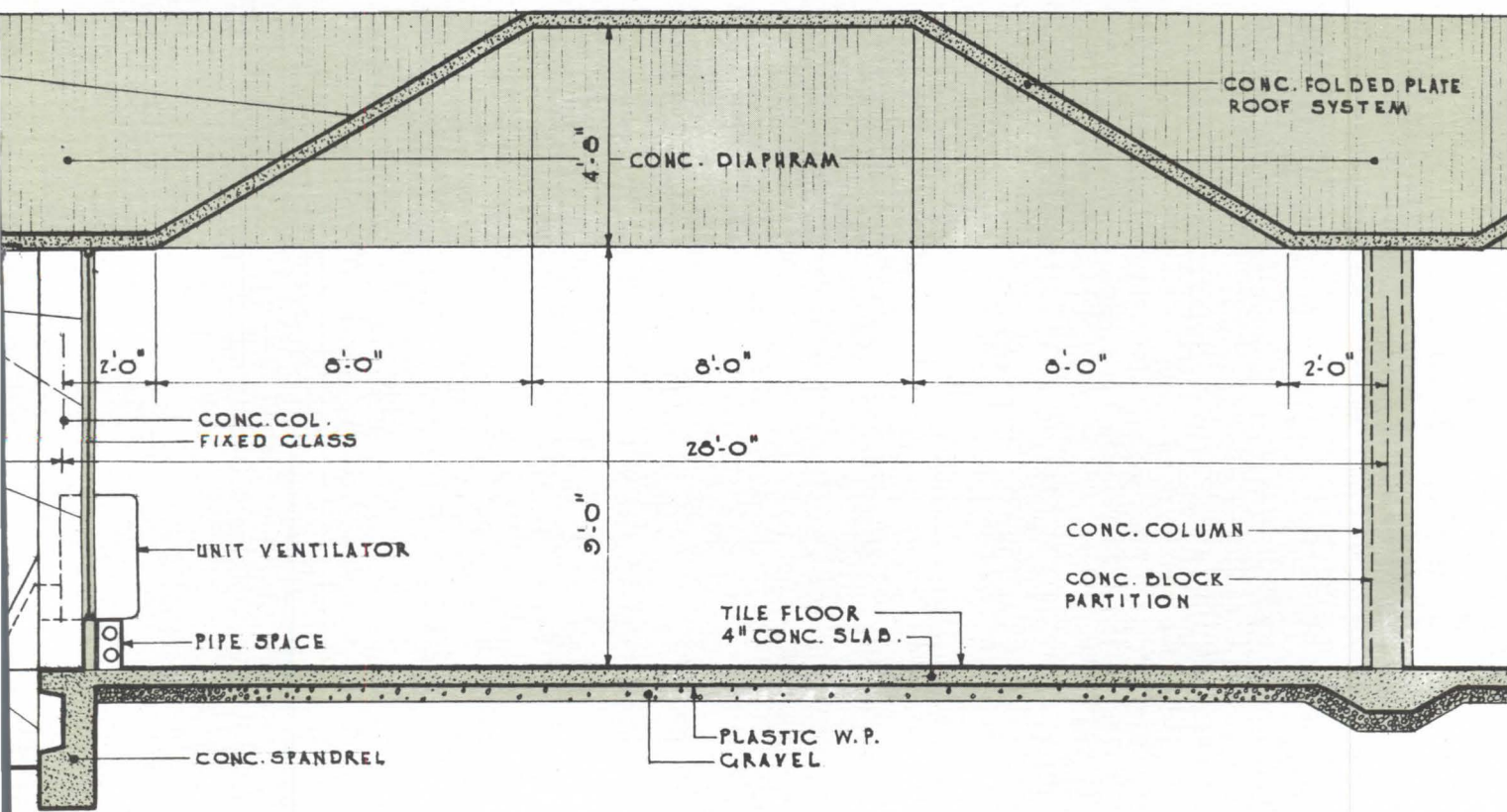
TYPICAL

TYPICAL

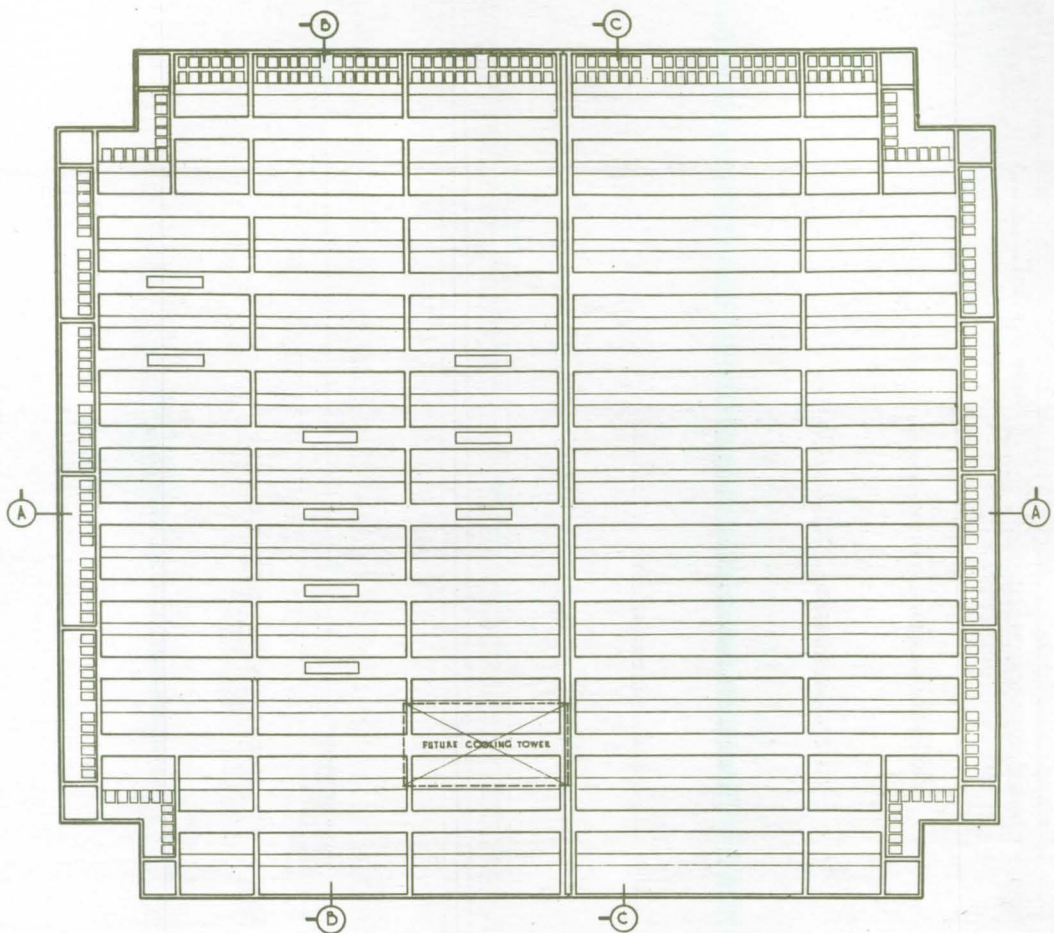
SCALE: 1/4" = 1'



ELEVATION

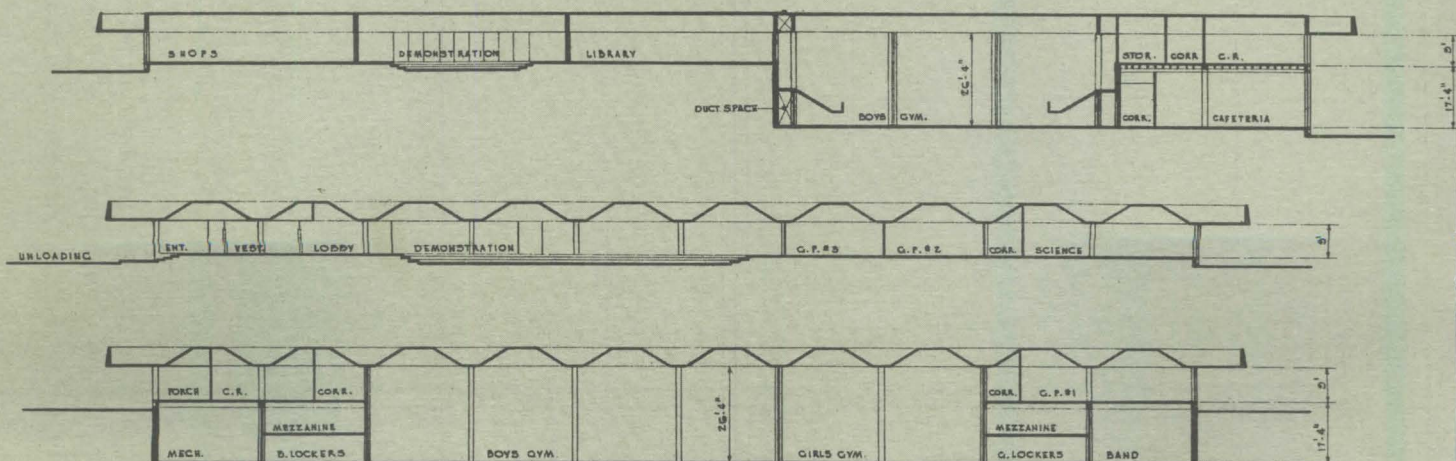


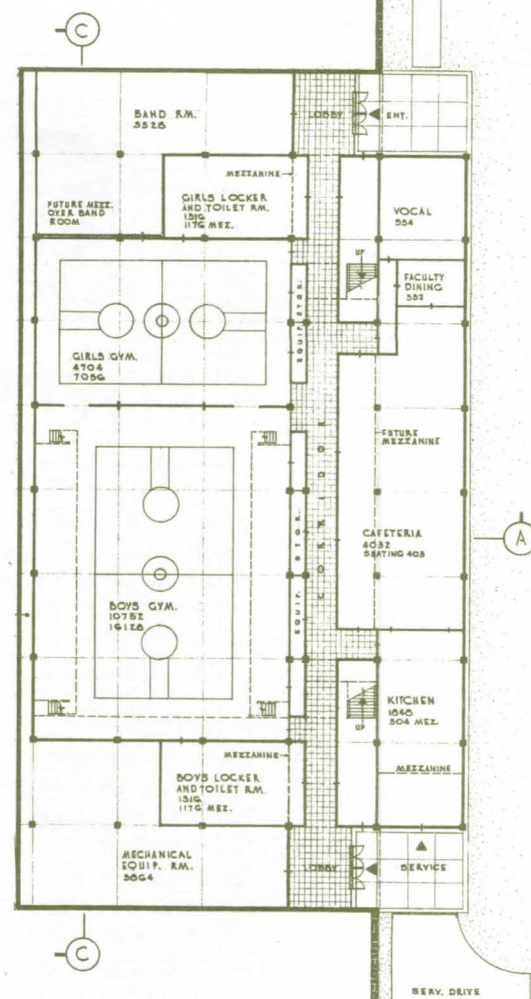
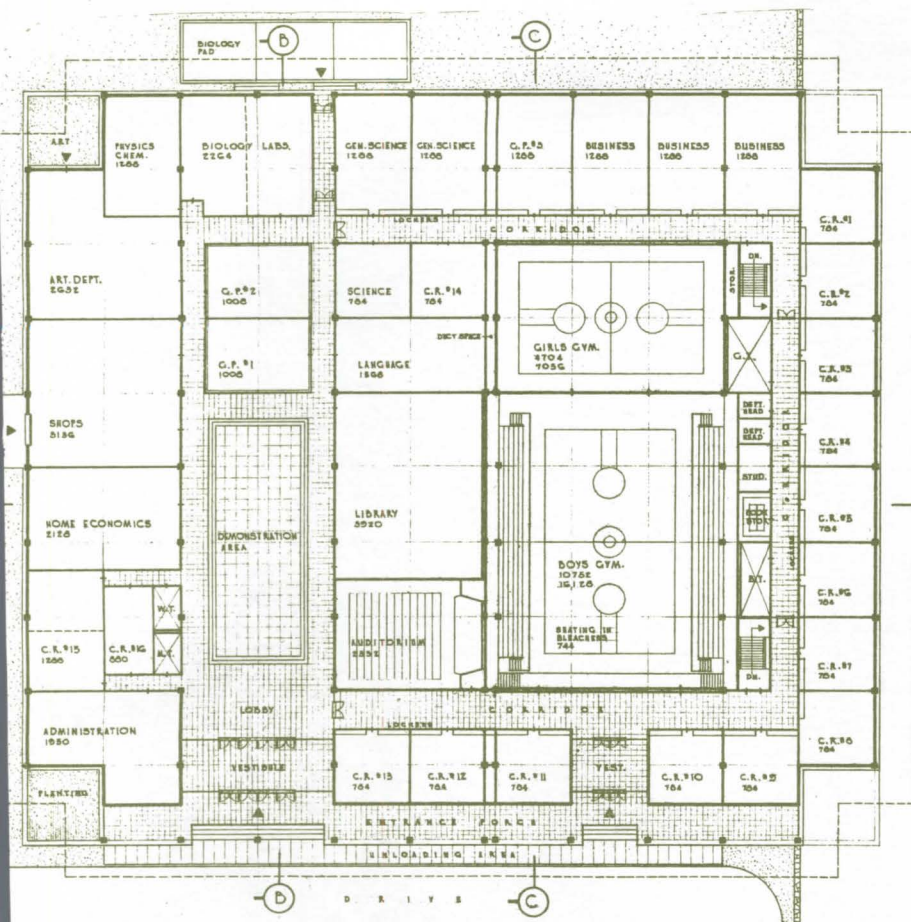
SECTION



ventilation—that is, operating sash window walls—could be disregarded; (2) analysis of recent school construction indicated that mechanical ventilation will often result in substantial savings in initial construction costs; (3) structurally, continuous spans could be employed, making use of longer spans and fewer columns; (4) the amount of exterior wall construction could be reduced resulting in definite savings; (5) circuit-

ing of mechanical and electrical services could be simplified; (6) siting of the school building would be less hampered by orientation and special site considerations; (7) compactness of the school building would leave maximum space for outdoor activities; (8) most important of all, the mechanically ventilated school would achieve a better teaching environment independent of the fluctuations of natural climate, making year-





round use of the building possible.

Classrooms will have relatively small glass areas (53 per cent of wall area per bay), and, in addition, will be sheltered by 14-ft-overhangs to provide adequate protection from heat build-up and sky glare. The overhangs are to be perforated to form trellises on those exposures where sun angles will not penetrate the glass areas.

Construction and materials: The struc-

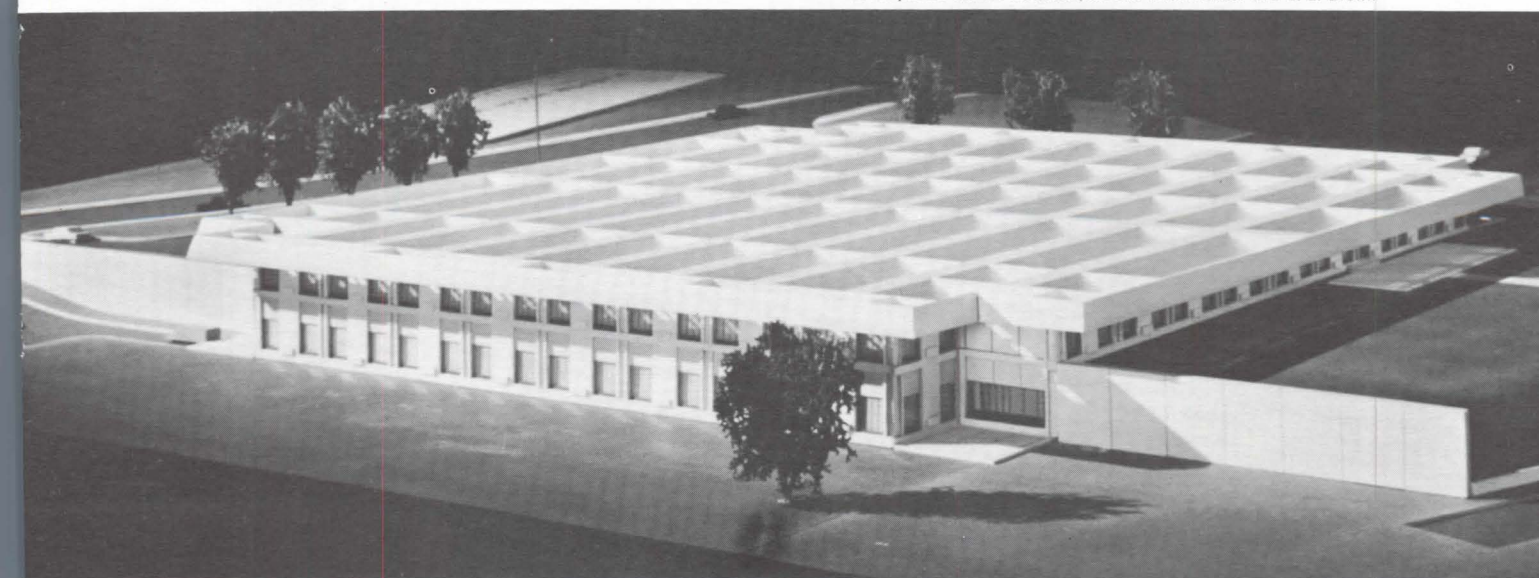
ture is to be of reinforced concrete. A continuous-design, folded-plate roof was found to be practical because of the compact plan. Pan joists are to be used as flooring over cafeteria, mechanical rooms, band room, etc.; other floors will be poured on grade. Interior walls are to be of concrete panels and poured-in-place columns.

Each classroom will be provided with heating and ventilating units for use with

circulating hot or chilled water.

Jury Reaction: The jury admired particularly the logic of the folded plate roof, not only as a practical and economical solution in covering a larger floor area, but as a means of providing visual interest and space definition within the building. The detailing of the exterior wall, as indicated in the typical elevation drawing (previous page), was considered to be strong and imaginative.

model photo: Robert McGinnis/model: W. M. Parker and E. L. Brown





HARKNESS

CITATION

education

THE ARCHITECTS COLLABORATIVE,
ARCHITECTS
WALTER GROPIUS, BENJAMIN
THOMPSON, NORMAN FLETCHER,
JEAN FLETCHER, JOHN HARKNESS,
SARAH HARKNESS, ROBERT S.
McMILLAN, LOUIS A. McMILLEN,
PARTNERS
JOHN C. HARKNESS,
PARTNER IN CHARGE
EARL R. FLANSBURGH,
JOB CAPTAIN
SOUZA & TRUE,
STRUCTURAL ENGINEERS
LEO J. CROWLEY,
MECHANICAL ENGINEER
THOMPSON ENGINEERING,
ELECTRICAL ENGINEERS

Project: Laboratory Facilities for Research in Experimental Geology for Harvard University, Cambridge, Massachusetts.

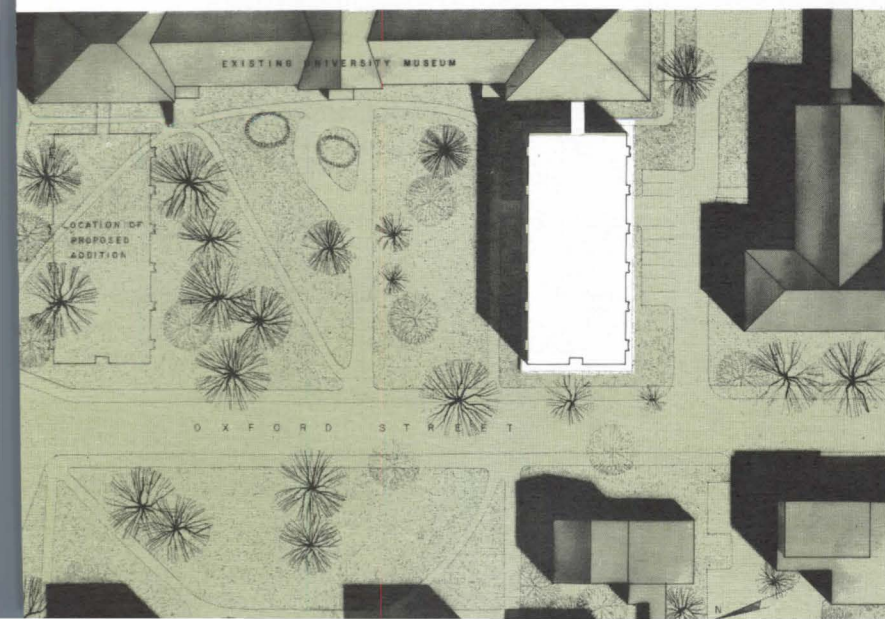
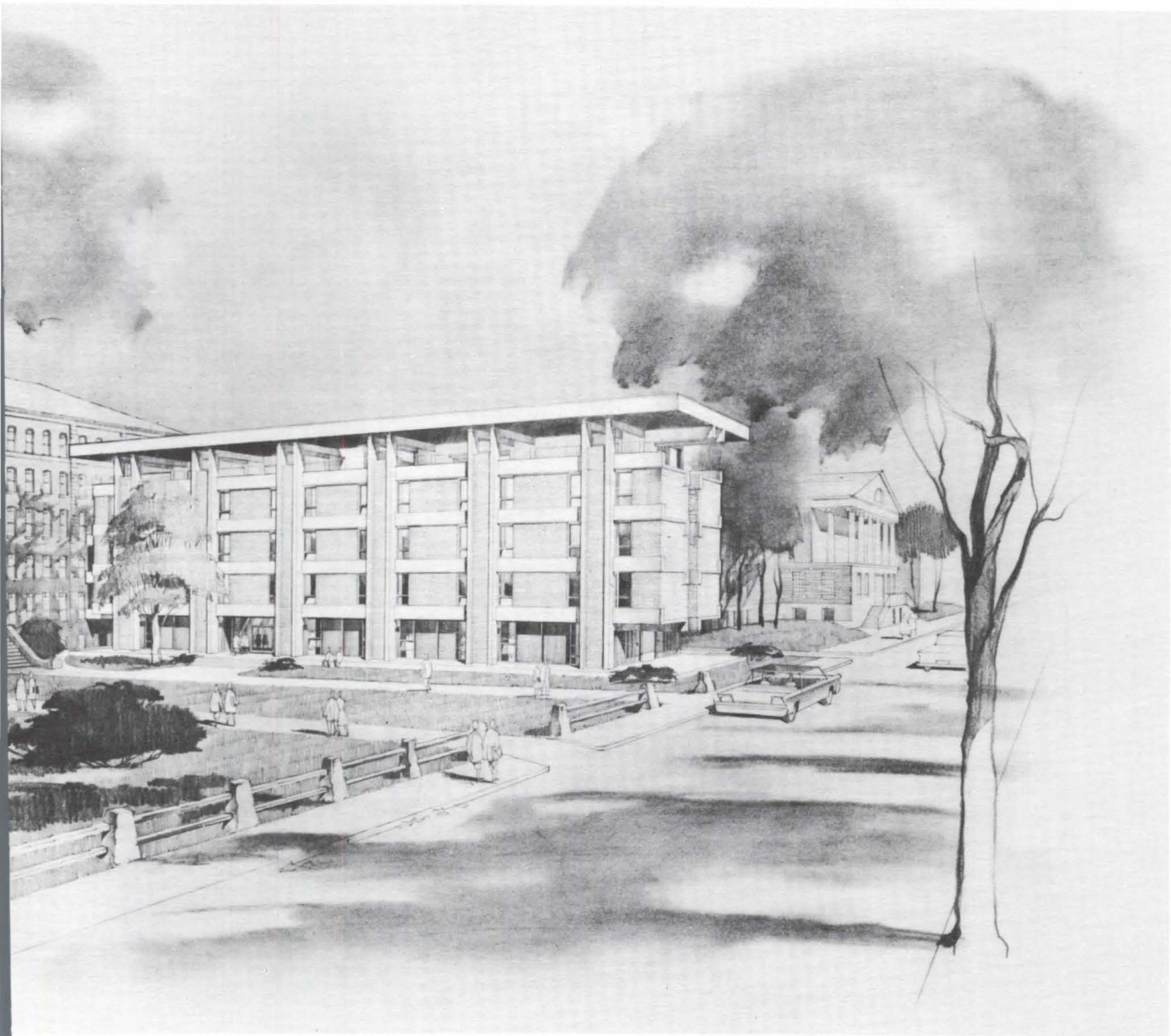
Site: A portion of Harvard University campus next to the existing University Museum and near the department library and lecture halls.

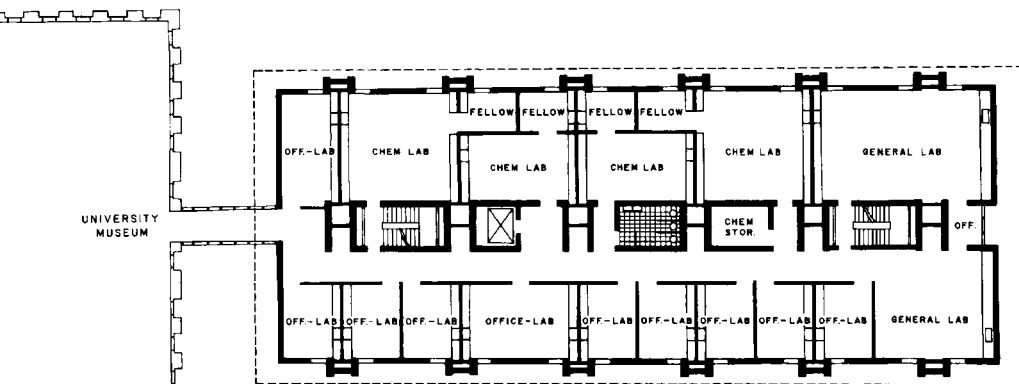
Program Requirements: To design laboratory facilities which would consolidate the numerous laboratories and offices now housed in various locations throughout the campus. The new building is intended for use by faculty members and advanced graduate students. It was of particular importance that the building be so designed that it could be easily modified in anticipation of changing developments in the geological sciences and the attendant advances in research methods.

Design Solution: According to the architects, the spirit of this laboratory was to be "one of strong, powerful simplicity, providing a utilitarian framework for complicated research in all fields of geology."

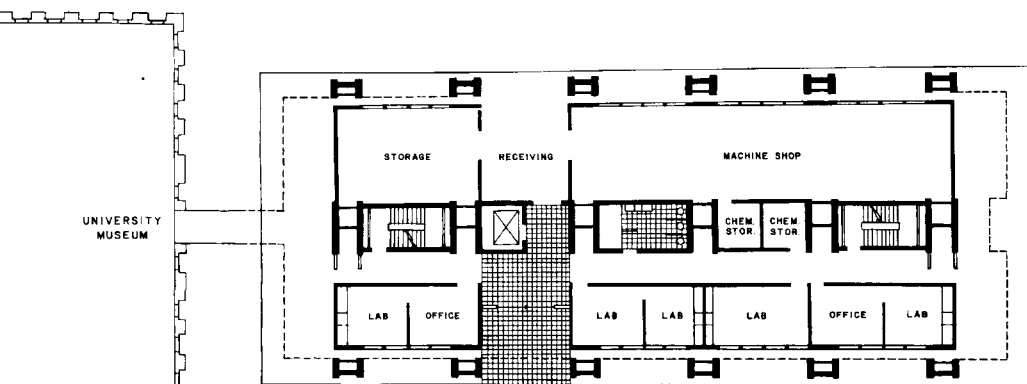
Possible room for future expansion of laboratory facilities is foreseen on the top floor, which will, for the present, be left open, though roofed. Portions of this open-air space will be used for special experiments; other sections are in-



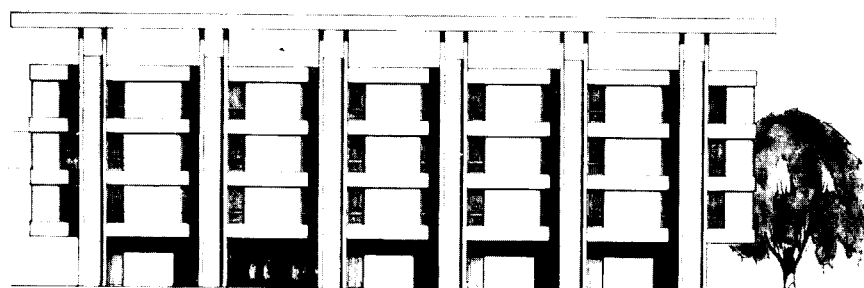




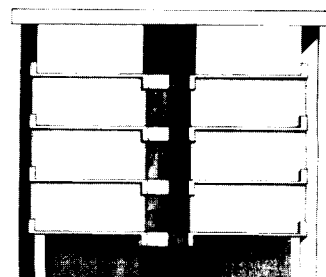
TYPICAL FLOOR



GROUND FLOOR



SIDE ELEVATION (north)



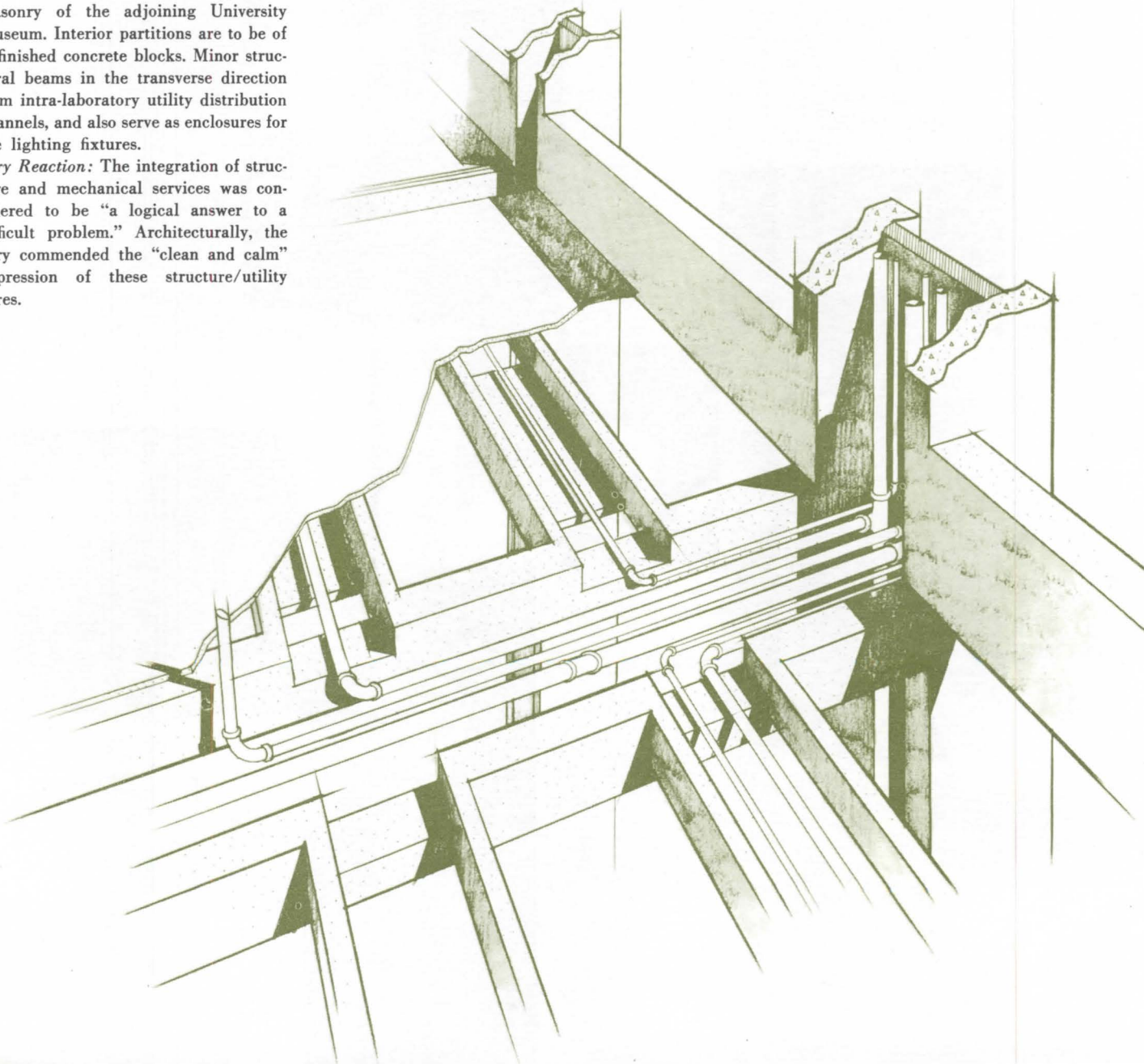
END ELEVATION (west)

tended for mechanical equipment.

Principal design elements of the building are the strong vertical utility cores that have been combined with the structural elements. Structural and mechanical designs were co-ordinated throughout to provide maximum freedom in the planning of the interior functions. Vertical shafts on the exterior and at the center of the building carry utilities to all laboratories. Direct access to all vital utility arteries will permit rapid modification or the addition of new utilities, vents, and chemical supply piping. "Flexible wall partitions, combined with these flexible utility arteries," explain the architects, "equip the laboratories to meet any new research challenge."

Construction and Materials: The structural skeleton of the building is of reinforced concrete. Double beams and columns enable the integration of utilities and structure. Infilling panels at the exterior are to be of brick, selected to harmonize with the existing brick masonry of the adjoining University Museum. Interior partitions are to be of unfinished concrete blocks. Minor structural beams in the transverse direction form intra-laboratory utility distribution channels, and also serve as enclosures for the lighting fixtures.

Jury Reaction: The integration of structure and mechanical services was considered to be "a logical answer to a difficult problem." Architecturally, the jury commended the "clean and calm" expression of these structure/utility cores.



JURY DISCUSSION



One of the exciting by-products of the Design Awards Program is that it serves as a barometer of the "state of architecture," as an indicator of directions, as a mirror of present-day U.S. architecture. To the jury and the editors, this is the most rewarding aspect of the awards program—and, at the same time, a frustrating one, since this "state of architecture," as deduced from the many entries, cannot be conveyed as completely as the editors would wish. In addition to those projects singled out for citations or awards, there are always many proposals of more than ordinary interest. However, the purpose of the "awards issue" remains above all to recognize particularly outstanding projects, and only secondarily to uncover and evaluate trends.

In lieu of a more comprehensive portrayal of the "state of architecture," here are some brief general observations made by the jury after the task of selection had been completed.

It was felt unanimously that the level of design competence was higher this year than in previous years; this level, however, seemed to fluctuate considerably from one category to the next.

Commerce, for example, was found to be an extremely poor category this year, while Public Use rose to new and unexpected heights. "One of the most important things in looking this over," commented Dean Perkins, chairman of the jury, "is the pleasant surprise at the rather high quality of the public works, particularly in terms of civic design and redevelopment." Not only were the architectural standards higher in this category, but there were indications that city and town governments co-operated with the architects in providing the proper settings for the buildings. Philadelphia's Municipal Building, which won the top award, the Waterfront Redevelopment for Philadelphia, and the Hawaiian State Capitol were only three of many cases in point.

Juror Bassetti thought that there was, in his opinion, "a lack of personal involvement with the problem, the structure, the materials. Too many architects," he felt, "were influenced by the published work of others." On the other hand, he was reassured "to see some people I have never heard of before coming out with extremely sensitive and well-thought-out schemes." Bunshaft, too, expressed the belief "that the mass of architecture of

the country has always been magazine architecture. Most offices turn to the magazines for design ideas, and I think we have seen it here. But today those ideas change faster than ever before. Also, you see different camps of design and their followers. The general level seems to be up, but the distinguished ones are fewer and farther between. But what really counts are the few good buildings that are done during a period—not the great mass, unfortunately. Have we seen the best of the good buildings here? We do not know." For a final judgment, he thought, the finished product would have to stand the test.

Where structure is concerned, the jury found a return to simplicity, in contrast to the prevailing currents of the past few years. "I am glad," said Pfisterer, the engineer on the jury, "that we didn't see a whole series of hyperbolic shells or space frames, or any other single symbol of structural gymnastics," and Bunshaft added that "the cycle of keep-it-free-and-loose-and-whimsical has disappeared. Post-and-lintel seem to be utilized more imaginatively." Drexler also made the point that "on the whole, the projects we selected depend largely on the design of structure—though there are one or two that are rather marginal. They are all pretty heavily weighted on the side of structure."

However, he did note "a recurrence of monumental roof forms—most of them involving pyramidal shapes." These he explained as "largely a stylistic preoccupation, which, one imagines, will be over shortly as soon as someone comes along with the next entertainment." This is not necessarily a shortcoming, he suggested, but rather part of a larger and more important force "to make buildings look less like industrial artifacts than they have looked for a very long time. This, to me, is not a fashion, but is much deeper. This movement has been preparing for a very long time."

It is this last thought that seems to sum up most clearly the trend of architecture today—a turning away from the "chaoticism" which was so evident last year. These projects, concluded Drexler, which are to be built in 1962, "look like buildings, and look as though they were meant to last. There is a surprising absence of slickness. In general, I think it's a cheering prospect."



Light Polarizing Panels

BY WILLIAM J. McGUINNESS

A recently installed office ceiling system, having modularly designed light polarizing panels, is discussed by the Chairman, Department of Structural Design, School of Architecture, Pratt Institute. Additional observations regarding this type of lighting have been selected from a recent paper by Dr. H. Richard Blackwell.

One of the first major installations of a new polarizing light panel is to be found in the recently completed office building for the New York State Teachers' Retirement System, in Albany, New York. This low-brightness panel, manufacturing of which has been in progress for about two years, is at present undergoing tests along with other luminaire materials at The Institute for Research in Vision at Ohio State University. Dr. H. Richard Blackwell of the institute has already released some of the results of his investigations, which quite definitely indicate an improvement of vision when polarizing materials are used.

Architect Donald J. Stephens reports on the planning that preceded the design of this building: "Much thought was given to the consideration of systems and materials that would 'beat obsolescence' by their durability, extra capacity, and flexibility." In view of these considerations and this new use of the polarization principle, as well as the concurrent studies of Dr. Blackwell, this ceiling system has been selected for discussion.

The ceiling suspension consists of an arrangement of interchangeable 4 ft by 4 ft panels. Opaque panels are acoustical tiles faced with plastic film and each of the luminous squares consists of two sections of 2' x 4' polarizing light panels. Both are products of Owens-Corning Fiberglas Corporation. Air distribution is provided by diffusers in the acoustical panels. Office changes can be accommodated, sometimes without rewiring, by interchanging the opaque squares and the translucent elements.

Initial lighting intensity at working level varies throughout the building from 75 to 200 ft-c. It is expected that the average maintained levels will be about 80 per

cent of these values. Minimization of glare is becoming so important, when high intensities are used, that any step to reducing it is naturally welcomed. When the polarizing material is viewed at the normal angle of vision—in looking around an office, one tends to look in a generally horizontal direction and fix on a distant point—its appearance is one of low brightness. It is only when the viewer tilts his head back and looks directly into the panel that the extra brightness, which is controlled primarily in a vertical direction, becomes apparent. Obviously, the combination of good intensity at working level and absence of disability glare works together to improve vision.

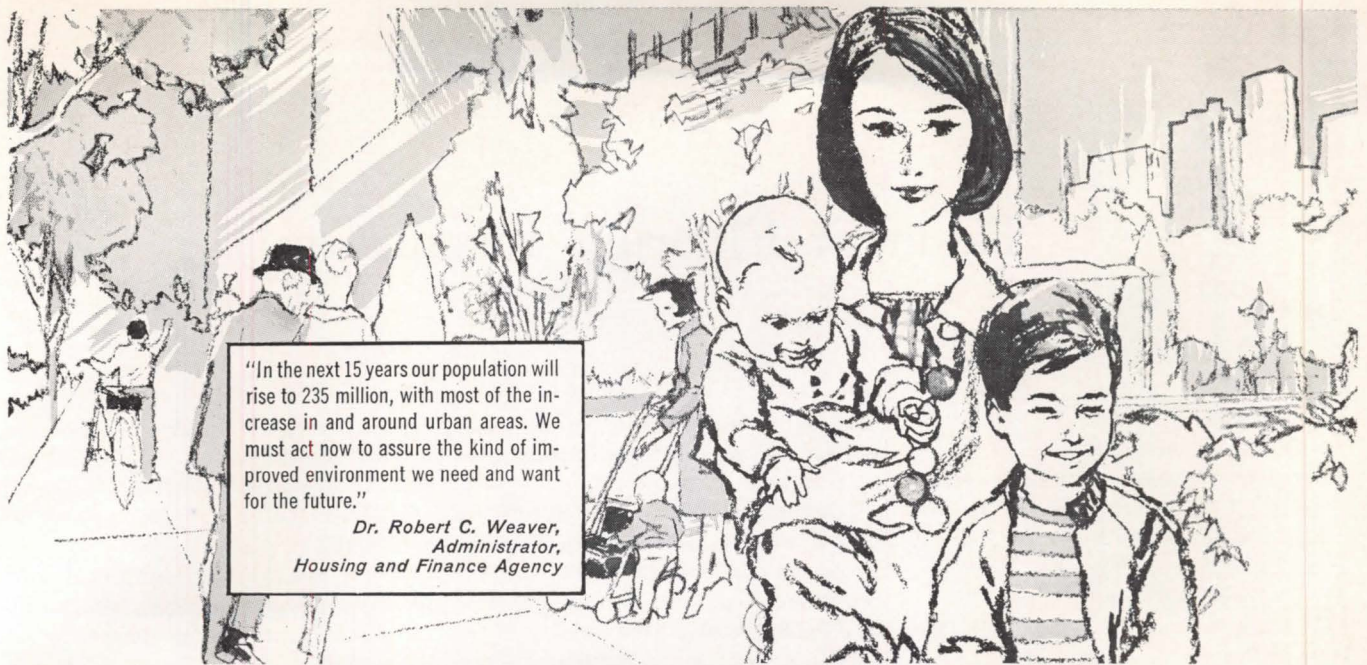
But there is more to the story. It is evident, from the results of the Blackwell tests, that the images one views on surfaces such as office paperwork are sharper and clearer when light is polarized than with other methods of lighting, since there is less reflection to cause glare from the paper. It would seem a logical finding that written material should be more clearly defined when it is lit by rays following a vertical path, from a source directly above, that if it were lit by rays striking it at an oblique angle, producing glare. Owens-Corning specialists explain that this directional control of light is effected by a processed glass material containing light-polarizing flakes. When the material is viewed from any angle other than normal to its surface, it has a uniform and pleasantly clouded appearance, as though one were looking through a light fall of snow.

The most recent of the many Blackwell reports was issued at the National Technical Conference of the Illuminating Engineering Society at St. Louis, Missouri, last September. It is called "A General Quantitative Method for Evaluating the Visual Significance of Reflected Glare, Utilizing Visual Performance Data." This distinguished, 37-page paper, which includes 95 illustrations and 62 tables, is somewhat too formidable to be summarized briefly. In lieu of a human observer, a photometer was used to study various tasks, and the contrast between dots representing written or printed material and their background was measured. It was found that strong

contrast results in improved ease of viewing. The photometer also measured the amount of glare that the background (the paper) reflected back to the viewer. Less glare, of course, permits better vision. The tests were made using bare lights, standard luminaire materials, and the polarizing materials under discussion. In order to simulate the human eye as it views various points on a horizontal work surface, the photometer was set at a variety of positions that were at an angle to the vertical. Numerous tasks were studied, and the results indicated that, when polarizing material was used, contrast was greater and the reflected glare less.

A few quotations from the report may be of interest: "Although disability glare is undeniably important in a few modern lighting problems, recent research has made it abundantly clear that reflected glare is of considerable significance in nearly all interior lighting installations." Another is: "The principal purpose of this paper has been to develop a general method suitable for use in evaluating the over-all efficiency of lighting in terms of visual performance data, and such a method has been described to cover the quantity of lighting and the reflected glare aspect of the quality of lighting in the same terms and compatible units." Finally, in the summary: "One generally neglected aspect of lighting is, of course, polarization. It is an aspect of electromagnetic radiation which should become a tool in the armory of the illuminating engineer. We believe that the present study has presented ample evidence that polarization must be considered along with quantity, spectral distribution, and spatial distribution of illumination. Certainly, polarization provides improvements in task contrast of considerable significance, judging from our values of Visual Effectiveness Factors."

It becomes apparent that the problem is not one of how much light is used, but how well it is used. Using a given intensity of light, it is possible, with polarizing materials, to achieve greater visual effectiveness. It is even conceivable that, in some instances, use of polarization will permit use of lower intensities of light.



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Dr. Robert C. Weaver,
Administrator,
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U.S. Housing and Home Finance Agency

James H. Scheuer
President, Citizens Housing and
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Minoru Yamasaki
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Birmingham, Michigan

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Resilient Flooring Installation

BY HAROLD J. ROSEN

Basic precautions to be observed during placement of underfloors that will receive resilient flooring are reviewed by the Chief Specifications Writer of Kelly & Gruzen, Architects-Engineers.

Placement of resilient flooring over concrete and wood subfloors is for the most part a simple and routine procedure. There are, however, certain basic steps that must be taken during the placement of the underfloors to insure satisfactory installation and performance of the resilient flooring.

The surface of concrete subfloors should be smooth—that is, they should have an even surface, one devoid of roughness—since, upon wear, roughness in a concrete subfloor is “telegraphed” through resilient flooring. Depressions, protrusions, and varying degrees of roughness in the surface of the concrete will reveal themselves through resilient flooring. In order, therefore, that a smooth surface in the finish flooring may be assured, new concrete underfloors should be steel-trowled during construction.

If existing concrete floors are to be surfaced with resilient flooring, depressions and cracks should be filled with one of the many leveling materials on the market. High spots and rough spots should be eliminated with a terrazzo grinding machine.

Concrete subfloors should likewise be devoid of grease, oil, and other foreign matter that may accumulate from construction operations since these may have a deleterious effect upon some resilient flooring and adhesives.

Wood subfloors provide a satisfactory surface for the installation of resilient flooring. However, here again certain basic principles must be observed to obtain satisfactory finished floors. Loose boards must be securely nailed. Protruding nails must be set. Foreign material must be removed. All wood flooring should be covered with a 15-lb unsatu-

rated felt over the entire surface; the resilient flooring should be installed over the felt.

Existing wood floors that are to be covered with resilient flooring, in addition to the requirements outlined for the installation of resilient flooring over new wood subfloors, may need sanding to remove irregularities and the use of crack fillers for open joints.

Other areas that require a certain degree of consideration and study in the placement of resilient flooring are: the present-day use of compounds for curing concrete floors; the employment of parting compounds for separating floor slabs where tilt-up and lift-slab construction are used.

The following is a release from the Asphalt and Vinyl Asbestos Tile Institute concerning concrete curing and parting compounds:

“The Asphalt and Vinyl Asbestos Tile Institute has started an intensive research program to solve some of the problems that arise from the use of curing compounds on concrete floors, and parting compounds for tilt-up or lift-slab construction. In order to co-ordinate these efforts with those of other interested groups, the Institute is working with the Rubber and Vinyl Flooring Council, the Portland Cement Association, and a number of the larger curing-compound manufacturers.

“It has been found that the use of waterproof curing paper, polyethylene sheet, wet burlap, damp sand, and similar methods for curing concrete has proven to be satisfactory over a period of years.

“With the increasing use of curing compounds, architects, engineers, contractors, and many others have been confronted with some serious problems after asphalt tile, vinyl asbestos tile, or other resilient floorings have been installed. Some of these compounds are entirely satisfactory for use; others may prevent an adequate bond between the tile and the concrete floor; whereas a third type may be injurious to the tile itself. It be-

comes extremely important, therefore, that suitable compounds be specified and used. If an unsuitable material has been applied, proper steps must be taken to correct the situation.

“When specifying a curing compound for any new concrete floor, first consult the tile manufacturer to determine the correct type of curing compound to use. Then be sure that the curing-compound manufacturer recommends his product for that type of installation. Finally, do not permit any other product to be substituted for it.

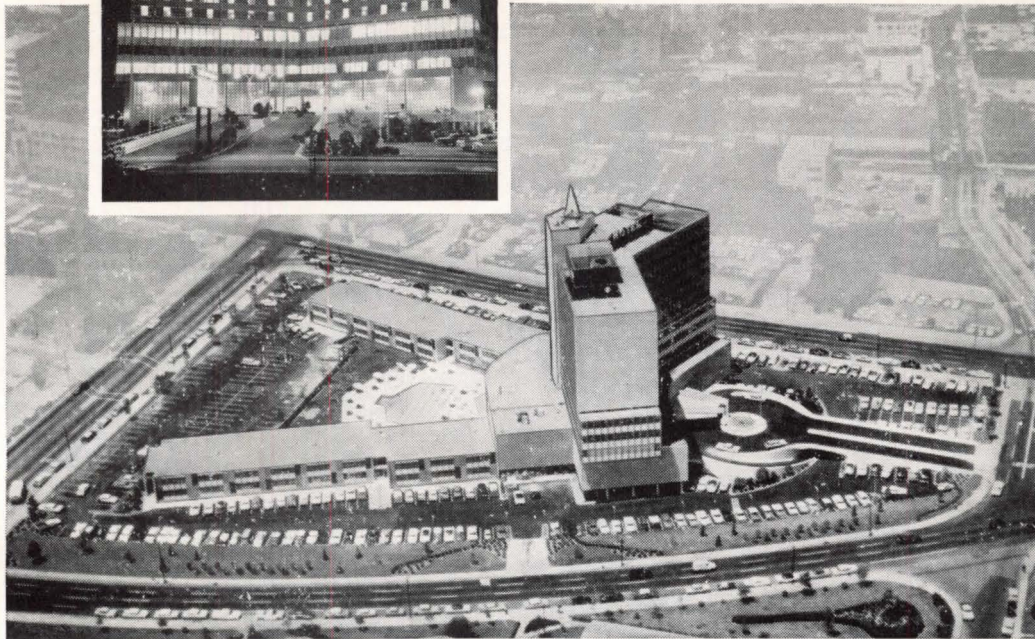
“In general, most oil-free and wax-free nonsaponifiable polymer and asphalt solutions normally present no problem for subsequent installations of asphalt tile and vinyl-asbestos tile. Where applied in accordance with the curing-compound manufacturer’s instructions, and recommended in writing by him, no further treatment will be required before the installation of the tile, except to remove any loose material from the concrete floor.

“Compounds which contain petroleum or natural waxes, sodium-silicate-type materials, oils, and others of a like nature, have been found to prevent proper adhesion or to be injurious to asphalt tile and vinyl-asbestos tile, and must be completely removed from the concrete floor before the tile is installed. Some compounds may be readily removed by brushing the floor thoroughly with a power steel brush. (Caution: do not use steel wool.) For others, grinding the surface of the concrete sufficiently deep enough to remove all of the compound may be required. Compounds with a petroleum base may even penetrate the concrete to the extent that it is not possible to remove them by surface grinding or other methods in order to insure a satisfactory installation of the tile.

“If there is any doubt as to whether one of these materials has been used on the concrete floor, determine what type was used, so that suitable corrective action may be taken if necessary.”



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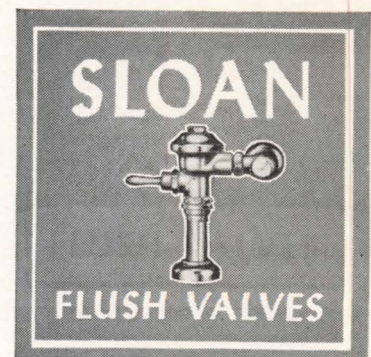
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BY JUDGE BERNARD TOMSON AND NORMAN COPLAN

Nassau County District Court Judge and a New York attorney continue their discussion of the confusion that surrounds the definitions of the practice of architecture and the practice of engineering.

The licensing laws of most states fail to provide a clear distinction between the practice of architecture and the practice of engineering. The absence of such definition has engendered disputes between the professions as to the role each properly plays in the construction field.

The New Jersey statute governing the practice of architecture was challenged in 1959 by a professional engineer who contended that he had a right to prepare plans and specifications for the construction of a country club and a one-family residence. The statute in that state authorizes licensed professional engineers to design buildings that are "incidental or supplemental to engineering projects." The New Jersey State Board of Architects, supported by the New Jersey Society of Architects, challenged the legality of the engineer's preparation of plans and specifications for the project in question, and the New Jersey Society of Professional Engineers intervened to assist the engineer in his defense. The evidence in the proceedings was presented to a special administrative board consisting of two architects, two engineers, and a representative of the state attorney general. This conflict, known as the *McCamy* case, has not as yet been resolved.

Although the New Jersey licensing statute limits the practice of architecture to licensed architects, it was the contention of the attorneys representing McCamy and the New Jersey Society of Professional Engineers that the exercise of the "police power" of a state to limit the field of building design to licensed architects, and to exclude licensed engineers from this area, did not bear a relationship to the health, safety, and welfare of the community. They argued

that, in respect to structural strength, heating, plumbing, and so on, an engineer is as well—or better—qualified to protect the health and safety of the community as the architect. They challenged any claimed exclusive right of architects to design dwellings as contrary to public policy and as unjustified, ethically, practically, or historically. The argument was made that the practice of architecture and of engineering overlap to such a degree that they are interchangeable, and that the reason that the New Jersey statute does not, by definition, delineate their respective areas is because they are for all practical purposes indistinguishable.

The attorneys for the New Jersey State Board of Architects and the New Jersey Society of Architects, in challenging the engineer's action, emphasized the relationship of aesthetics to the public welfare. In support of the constitutional power of the state to limit the function of design to licensed architects, they argued that a wide difference exists between the services that should be rendered by architects and those that should be rendered by engineers for the protection and welfare of the public. They supported this argument by pointing out that the existing statutes recognize the distinction between the professions by providing different qualifying standards and examinations for the licenses needed to practice these professions in New Jersey. For example, if architects or engineers wish to qualify in both professions, the engineer must take Parts I and II of the seven parts of the architects' examination, and the architect must take Part III of the three-part engineers' examination.

Several deans, or former deans, of architecture schools testified at the hearing that the preparation of plans and specifications for a country club and a one-family residence constituted the practice of architecture, both from a historical view and in relation to the curricula offered by the schools of learning that qualify the separate professions.

Architect's Role Defined: Part 2

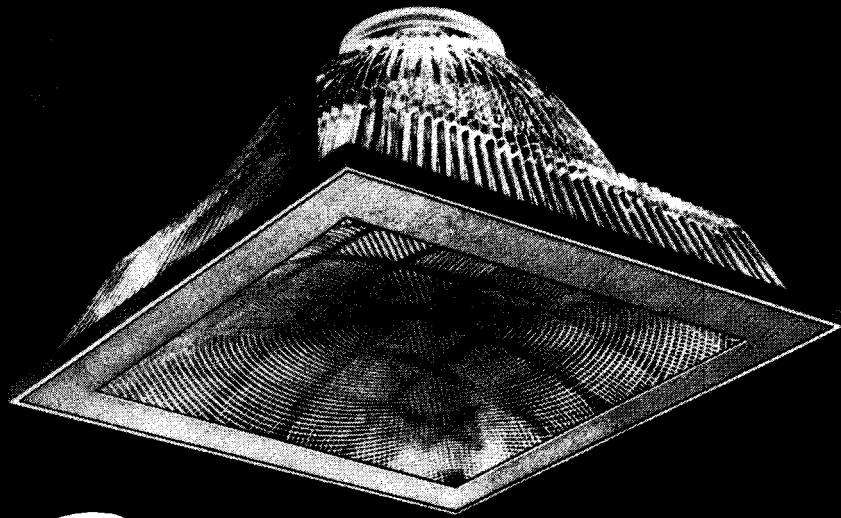
Several of the witnesses appearing on behalf of the New Jersey State Board of Architects emphasized that, with respect to building projects whose predominant purpose is to furnish space for human use and occupation, it is important to limit design and supervision to licensed architects so that proper leadership and co-ordination of the construction team may be assured. These witnesses asserted that, independent of the percentage of engineering work in a particular project, the licensed architect was the best qualified and the natural leader and co-ordinator for that type of construction project.

McCamy's attorneys not only emphasized the fact that the "practice of architecture" is not defined in the New Jersey licensing statute, but further questioned the meaning of those provisions of the statute which provide that a licensed engineer can design buildings only if they are "incidental or supplemental to engineering projects." In this respect, the courts of New Jersey have recognized that there is a distinction under the licensing statute in respect to the areas of practice of the respective professions, but they have been unable to clearly define that distinction. The model definition of the National Council of Architectural Registration Boards, discussed in last month's column, defines the practice of architecture in terms of the preparation of necessary documents for the design and construction of buildings "with the principal purpose of providing space for human use," including structures "for social, political and economic service." If adopted, this definition would probably help define the areas of competence of the respective professions and would avoid conflict except in the overlapping areas of practice, which would tend to be narrower. Such a solution would help both professions.

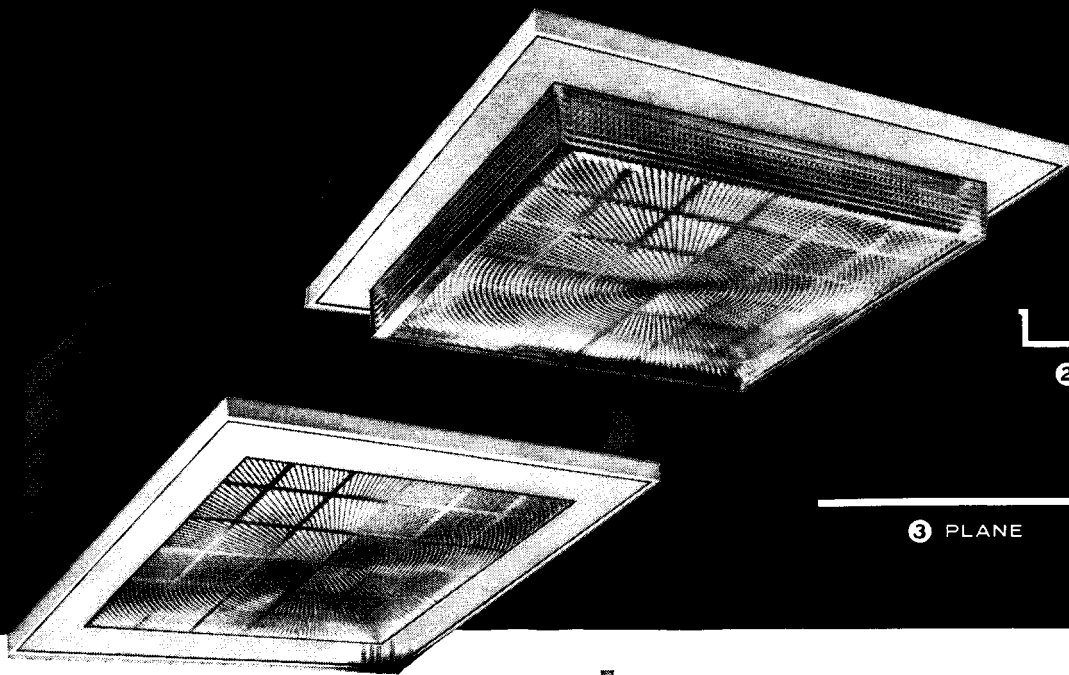
In next month's column, we will conclude this series of articles by discussing the encroachment upon the practice of architecture by builders in the context of the Virginia Licensing Law.

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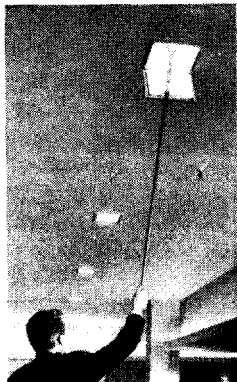
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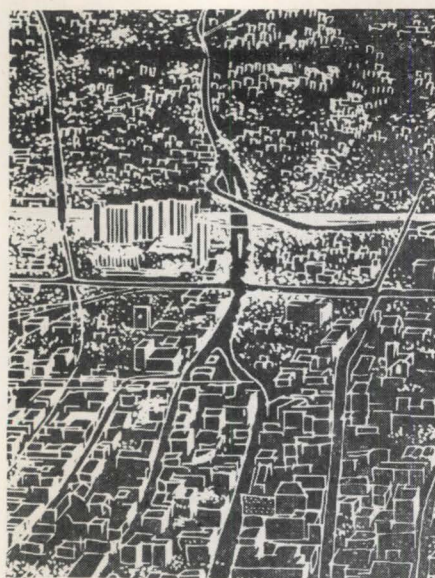
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Urban Housing: P/A on the New Frontier

Dear Editor: Congratulations on the OCTOBER 1961 P/A. It makes for most interesting and provocative reading and perhaps suggests that architects will do more than look at pictures if there is a discussion dealing with ideas on the frontier problems of architecture in our time.

VERNON DEMARS
Berkeley, Calif.

Dear Editor: I just read the October issue from cover to cover. Ilse Reese's article is excellent. Jan Rowan's summary of "New Blues and New Trends" is superb. Congratulations!

WOLF VON ECKARDT
Bethesda, Md.

Dear Editor: Ilse Reese's article on "Storing the Automobile" will become a classic reference in our office. I think the work has been well compiled, and I am pleased to be part of it.

BERTRAND GOLDBERG
Chicago, Ill.

Too Few Kieslers, Too Many Bagels

Dear Editor: *Time* magazine's contribution to American journalism, the "rhetorical negative," has now penetrated the Moholy-Nagy vocabulary: viz., her letter in the OCTOBER 1961 P/A concerning the study of Kiesler, which contains innuendos at the level of: "Although Mr. X is no longer a card-carrying Communist, his espousal of left-wing causes shows . . ."

Passionately restraining herself from a verbal destruction of P/A, she dispassionately corrects (accurately) the passionate Freddy Kiesler with good Ger-

manic scholarship. Is it really important to Kiesler's "pursuit of an idea" that Hennebique was first, and that Perret had already done in '03 what Kiesler gives him credit for doing only in '21 (i.e., who did the first concrete frame building). It reminds me mostly of the type of childish Russian propaganda that cries out: "We did it first: Bieslavly invented the bagel 62.3 years prior to its first appearance in capitalist America." Or further, as many a contemporary bagel-eater would say: "Come off it, Mrs. M-N."

NORVAL WHITE
New York, N.Y.

Dear Editor: The Kiesler article [JULY 1961 P/A] was stimulating and provocative. I should like to see more like it in our architectural magazines—that is to say, articles pursuing broad architectural ideas and important traditions.

The soundboard of your "discussion" format, highlighted by meaningful illustrations, is an excellent way for the reader to meet with a dynamic and forceful personality.

MARIO CIAMPI
San Francisco, Calif.

Dear Editor: The method of presentation of the Kiesler article was, I think, excellent. It is only through interviews such as this one that greater insight can be gained into the events of that fascinating period. I wish you could find someone who attended that CIAM meeting at which Haering spoke in defiance of Corbu; Haering's speech, unlike Corbu's, was never even recorded!

I never had understood how Kiesler—together with the last of the architect members, van Eesteren and Rietveld-Schrader—had originally come to join the De Stijl group. His statement at the Paris Exposition ("City in Space"), which was published in the jubilee issue of *De Stijl*, does, however bear out what he says in the interview, although both statements are essentially more a reflection of Stijl philosophy than anything else.

An awareness of Kiesler's philosophic position in relation to his work makes one realize, however, that any attempt to give physical expression to such an abstract idea [the Endless concept] is bound to result in banality. Indeed, the most successful interpretations of that idea are to be found more in Kiesler's work in theater design than in architecture.

Here one can make a comparison, I think, with Kahn, whose pragmatism, when manifested, becomes a "system" with a strong formalistic bias. I do not

intend by this, however, to make a direct comparison between the two, although, on second thought, Kahn's "Tower" [Medical Research Building, University of Pennsylvania] might be comparable.

The Endless House—no matter how long Kiesler claims to have been involved with the idea—appears to be much more a deference to the current indulgence in form making; it seems, superficially, to be an end in itself, and, as such, has little reference to the Endless concept itself.

What is manifested in the Endless House is simply another indication of the break with the 20's, which architects today seem to think is a good thing. It adds another facet to the almost "Roman collapse" of architecture in America; except for its superficial opulence, it is an architecture that is "content-starved."

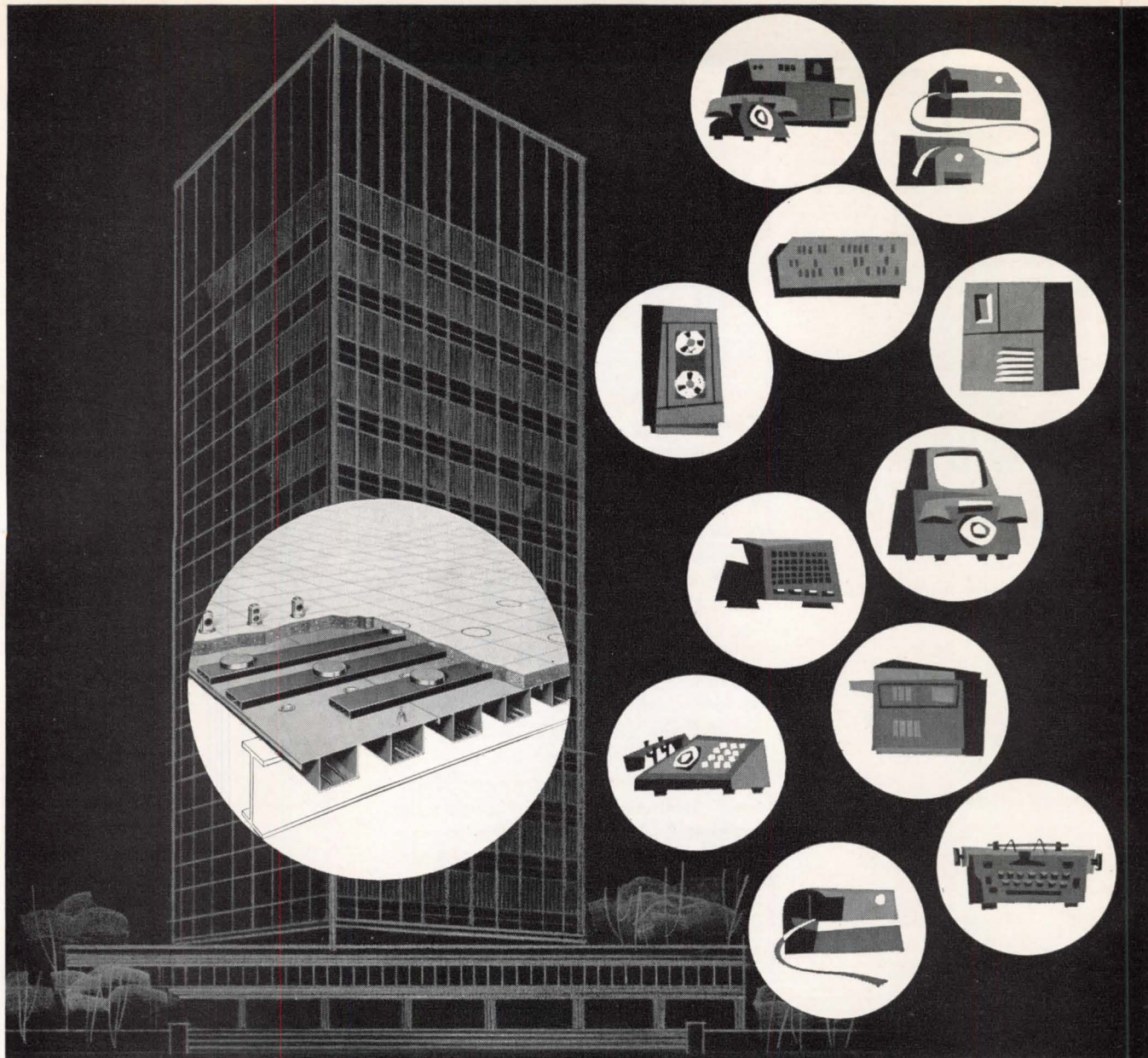
There was a time in the early days of the movement (which I still cherish deeply) when the Einstein tower, and other projects by Mendelsohn, Finsterlin, and other members of the "Wendingen" period, revealed a similar "form-concern." This was at the time Kiesler was a member of De Stijl and was working—superficially, at least—in their medium. He was not, however, a particularly active member. (He never participated, for instance, in any of the group's manifestos.) He was recruited, in the first place, on the basis of his theater work, where these ideas were most effectively examined and where they had the closest affinity with the Stijl world of "universalism."

JOHN FOWLER
New Haven, Conn.

Dear Editor: Reading your inspiring interview with Frederick Kiesler left me feeling quite exhilarated. It is the most penetrating conversation on an insistent idea I have read.

Although Kiesler and his work are almost new to me—I spent many Friday nights at Simon Gould's Eighth Street Cinema during my student days at the Cooper Union—I feel quite close to his tenets. As an interior designer, I have been evolving similar structures for the past year.

Continuous architecture is the fullest expression of human life; nothing else can be so much part of man, all other things he must take unto himself. To me it becomes analogous to reason and emotion. Self-identification with a cube or square is extremely difficult for most men—completely unnatural—whereas the rounded continuous form begs its occupants to partake of itself. When man



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PAUL C. SANGREE
Allentown, Pa.

Applying the Birch to P/A

Dear Editor: Your item in the P/A NEWS REPORT, "Developments Pervert Proper Use of Highways" [OCTOBER 1961 P/A], cannot be left without comment.

It is regrettable that a supposedly well-informed editorial staff of a national publication could publish such immature generalizations.

A high-capacity highway with interchanges has its access restricted to these interchanges in order to prevent it becoming a congested street, regardless of development along its route.

It is a basic right in this country to be able to develop one's property to its highest and best use, and to realize a profit in so doing. Perhaps your editorial staff prefers the alternate approach used behind the Iron Curtain.

It would seem that an architectural magazine should be more concerned with the question of whether or not the proposed commercial, recreational, and industrial complexes are functional and aesthetically pleasing.

IVAN F. GENNIS
Packard, Muir & Train, Inc.
Sacramento, Calif.

Content of Stainless Steel: A Series Question

Dear Editor: Congratulations on your special issue on "Tectonic Steels" [SEPTEMBER 1961 P/A]. This kind of reporting on significant activities and developments is sorely needed in the construction market.

Standing out like the first dent in a new car, however, is the last paragraph on page 200 (in the article on "Steel Furniture"), which "downgrades" AISI stainless-steel grades in the 200 and 400 series. These two grades are entirely adequate for most furniture applications; each, in fact, has advantages over the types indicated as those that should be specified.

To say that lack of nickel deprives a given grade of steel of corrosion-resistance is to compound a common error as to what makes stainless steel *stainless*. The industry standard that classifies a steel as stainless is a chromium content of approximately 12 per cent; all 400 series grades contain that much chromium or more. The 200 series contains 3½ to 6 per cent nickel and thus does not "lack" nickel or corrosion-resistance; it is certainly adequate for any furniture usage of common variety. The

200 series is, besides, much stronger than the 300 series (55,000 yield *vs.* 35,000 yield); and the 400 series is about 20 per cent cheaper.

The major point I wish to make, however, is that, among the many types and grades of stainless steel (there are more than 40), several may be considered for almost any application. Rather than relying on tradition when specifying, the factors that should be evaluated are the differing physical characteristics of the various grades, as well as their varying prices and availability.

RICHARD A. BIGGS
Manager, Construction Market Development
Union Carbide Metals Company, New York, N.Y.

The Missing Link

Dear Editor: Your "P.S." in the SEPTEMBER 1961 P/A ("The Employee Who Wants to Advance") further confused my already confused opinion of this subject. I myself, fortunately, was trained in an office where the boss took his personal time with me; I, in turn, have been trying for four years now to return the compliment to my employees—even when they resented it. But I begin to wonder whether a good part of the fault lies not with the boss, but with the employees.

New boys, "fresh" from college "claimingly" know more about design than the entire staff—but nothing about its practical aspects, its economics or time elements, and, furthermore, don't want to know. Boys with one year's experience "undoubtedly" know more about construction details than the engineers—but nothing about the practical aspects economics, or time elements, and don't care to. The second-year men begin thinking; but by this time they demand a salary hardly commensurate with their experience, and, of course, then the big boss is pushing for production to earn that salary.

The more experienced men (five years plus) are probably worth a high salary. I, for one, would be glad to pay it. But they don't want this; they want a partnership and the run of the show, but they're too lazy to go out and develop their own organization.

Your editorial is very timely, but your suggestions are difficult to effect. There is still a missing link somewhere; maybe it's back in the schools in a missing course called "Boss Practice and Problems."

LORAND WEST
Los Angeles, Calif.

Dear Editor: Your September "P.S." raises an important problem, but, I believe, sidesteps the real issue. When a

practicing architect ceases to inspire his employees with a love of architecture, when he no longer guides them toward sensitivity of fine architecture, then that man ceases being an architect; he becomes, instead, the head of a drafting service. No wonder our architecture is so cold and inhuman; for if the architect has no true love of his art, then how can his buildings be human? The responsibility of the architect toward his employees is to guide and educate them—not simply to pay them wages.

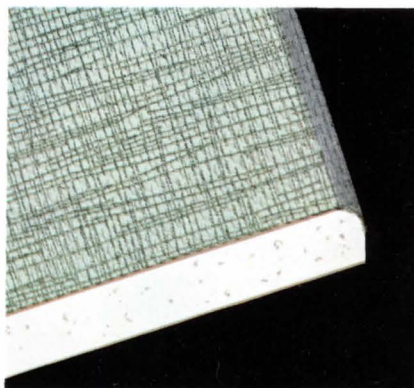
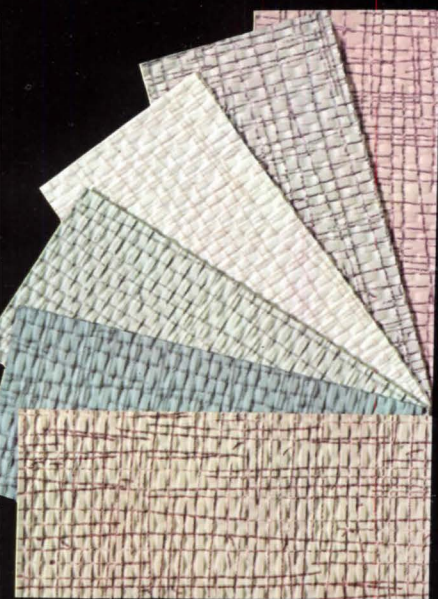
Far too many firms today view architecture simply as a big business, with a consequent inhuman attitude toward both projects and employees. They do not approach their work in terms of, "How can this problem best be solved for the good of the client and the good of architecture—past, present, and future?"; it is tackled instead in terms of, "How much can we make from this job?" and "Is it in the current cliché so that it will be published?" How can architecture improve with any speed unless all involved are doing their very best—damn the profits—and doing their best includes guiding their employees.

If a person enters architecture to amass wealth, he is both a fool and a detriment to the profession. The true architect must love architecture in all its facets; he must look on profit as a fringe benefit that, if it does come, will be small and infrequent. I am not suggesting that we all starve in some attic, but I do mean that we should dedicate ourselves to architecture first—and let profit find us somewhere on down the line.

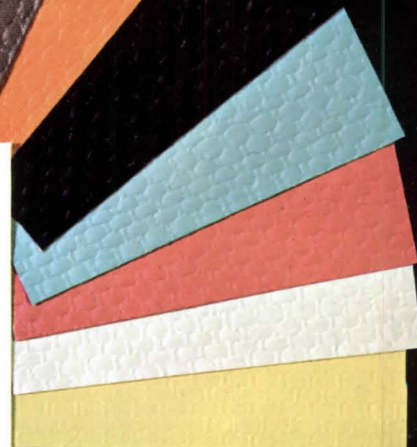
In your editorial, you quote "one fine architect" (as you put it) as saying, "If I had to go over each step with [my employees] and direct and correct and explain, I'd soon be out of business—and then whose work would you publish?" If he shows no more concern than this about transmitting his ideas to his employees, then the final work will not be his; and if the work is good, then the credit should go to the man who produced it (the assistant), and not to the Big Name who is more concerned with profits than the actual planning and execution of the work.

If architecture is to survive, it must be the product of a devoted and talented creator, and not the product of a slick executive head of a team. Architecture must not be the means to an end; it must be the end. Unfortunately, our ranks are made up of many practitioners but all too few architects.

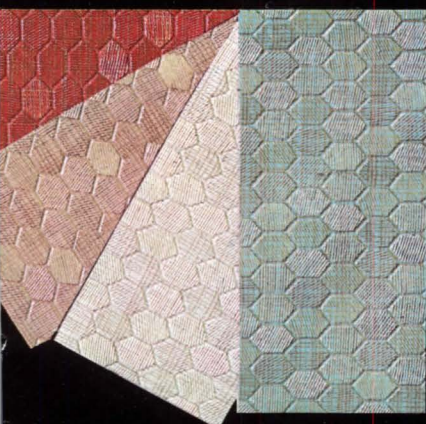
ROBERT C. DOUGLAS
Portland, Ore.



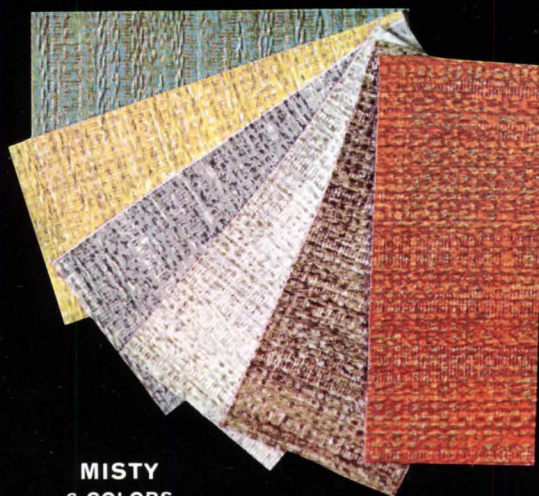
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A Chinese Puzzle Comes Apart

BY JAMES C. ROSE

A New York landscape architect gives a critique of Udo Kultermann's New Japanese Architecture. Frederick A. Praeger, Inc., 64 University Place, New York 3, N. Y., 1960. 180 pp., illus. \$13.75

New Japanese Architecture looks like many another book on the general subject of architecture—the way that a Chinese puzzle often resembles an innocent egg—until you take it apart. I glided through the first reading, with freshman abandon, in one sitting. Behind the expensive-looking, conventionally elegant façade of what the publishers refer to as “books that matter,” I found a solid block of 180 pages devoted to excellent (if uncredited) photographs, mostly one to a page, sometimes accompanied by diagrams. (The captions simply identify building and architect; there is no expression, in layout, of the author’s grouping; and there is no analysis or cross-reference in 180 pages of photographs.) The text occupies an additional solid block of about 30 pages, divided into three parts under the following headings: *Fundamentals* (a résumé of Japanese attitudes, historical and current); *Problems and Solutions* (popula-

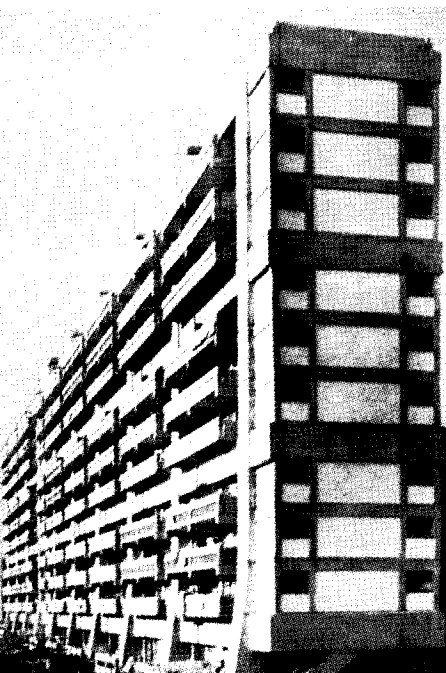
tion increases, insular expansion, traffic—particularly the editorial problem of trafficking a book between Germany and the USA); and *Architects* (a textbook recital of 24 Japanese architects). Scattered within these 30 pages are innumerable references to the photographs, which makes reading the text similar to viewing a one-way tennis match, since there is nothing to key you back into the text should you want to learn about uncaptioned pictures. The only pretence—and I do mean pretence—at any kind of indexing or cross-referencing is a dropped-in page entitled “complete list of abbreviations on floor plans.” This is a childish overelaboration since it only creates another, minor-league tennis match; it is unnecessary because the abbreviations refer only to nine of the plans, which have more than enough room that would have allowed direct labeling.

In spite of these (and other) impedimenta, *New Japanese Architecture* is a serious book with an important message. A new tradition, which is neither overly imitative of Western forms nor unduly reminiscent of the time-honored, tatami-mat-and-wood structure, has been emerging in Japan since World War II. The author traces its lineage to the deep-

ly rooted traditions of its own regionalism; although it is based on Western techniques, it is social in origin (reflecting a new philosophy) and indigenous in expression.

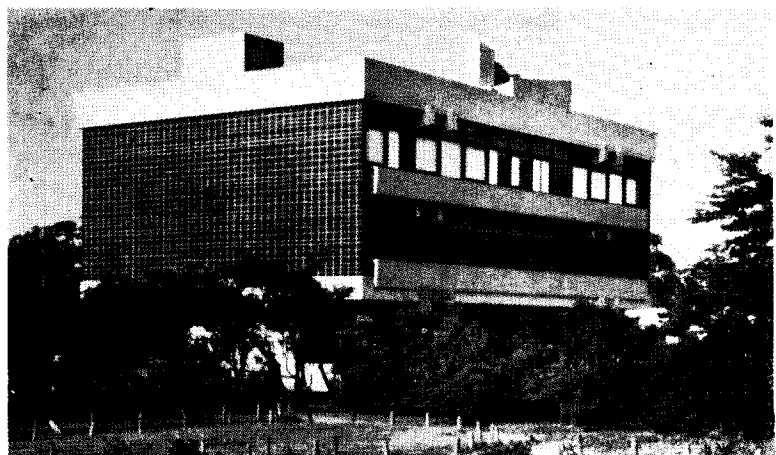
The photographs, with a few notable exceptions, back this up to a remarkable degree. They show the Western equivalent of town halls, schools, recreational and cultural centers; libraries, hospitals, offices and department stores; industrial, exhibition and sport buildings, as well as hotels, housing schemes, and a few of the newer departures in domestic architecture. However, it must be remembered that these categories do not, strictly speaking, exist in Japan. The Japanese penchant for multiple use is such that a “town hall” is likely to include an auditorium with stage and projection equipment, rooms for adult education, libraries, exhibition space, restaurants, and shops. Sports buildings, on the other hand, generally include activities we associate with community centers, schools, and club houses. The result is municipal building devoid of bureaucratic stuffiness, and social building that reflects a new Japanese attitude. The author sees this, along with highly selective construction techniques suitable

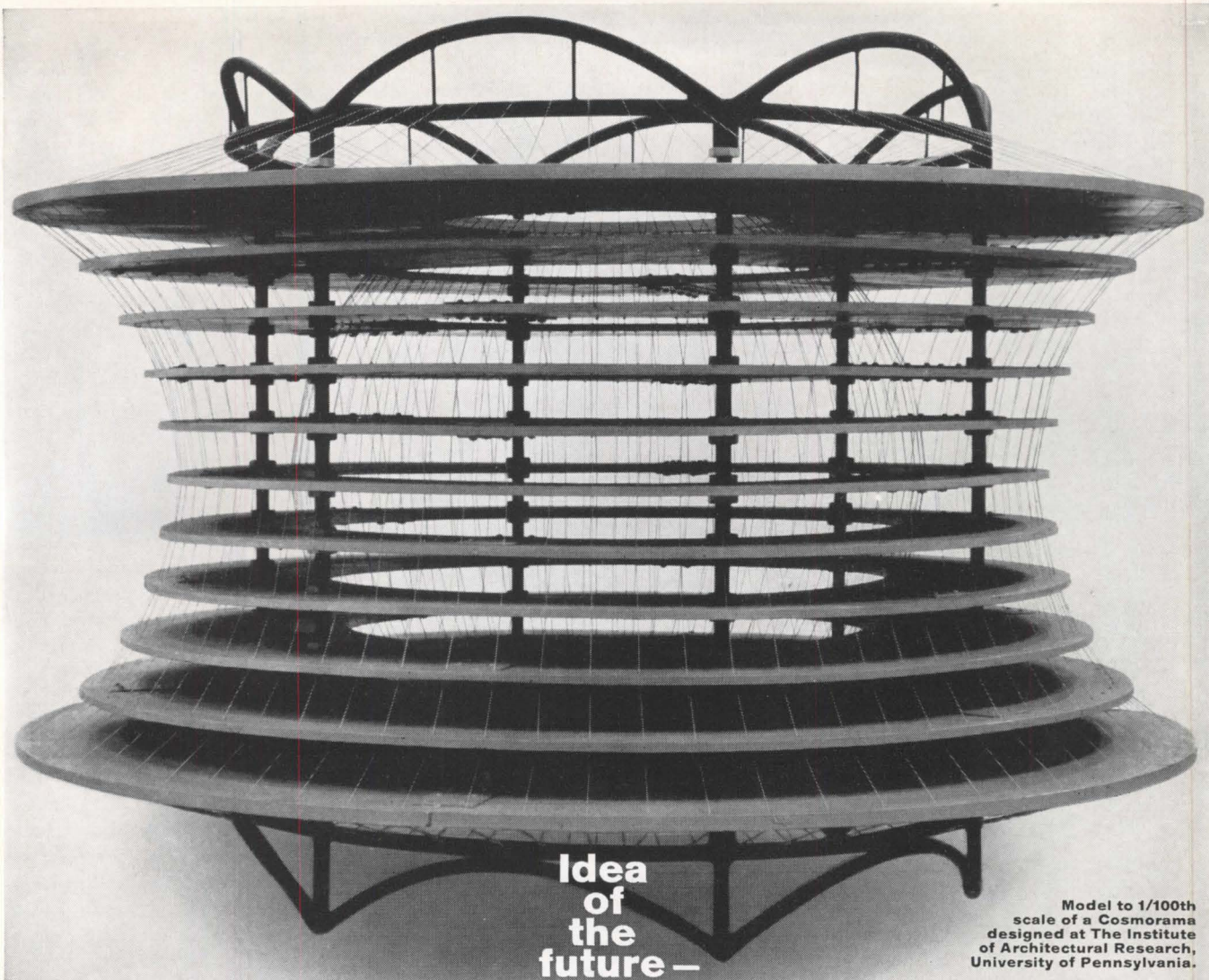
Continued on page 186



Harumi Apartment House . . .

. . . and Sogetsu Art Center.





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of
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future —**

Model to 1/100th
scale of a Cosmorama
designed at The Institute
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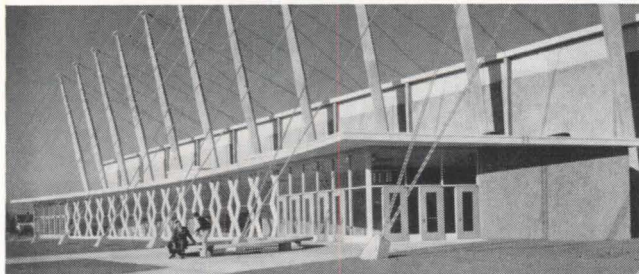
Like to take a trip through space without ever leaving Mother Earth? This model of a Cosmorama, which would simulate space travel for 40,000 spectators much as a planetarium simulates views of the heavens, gives an idea of how it might be done in the not-so-distant future. The completed building would be 30 stories high, with the inner hollow sphere 330 ft in diameter.

However imaginative the idea of the Cosmorama may seem, its construction is practical in the extreme. It is based on the principle of the suspension system. This principle, pioneered by Roebling, is being utilized by

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Continued from page 182

to the region, as a characteristically Japanese tendency to "dip back" into their own culture and into nature in creating their new architecture.

At first glance, this may appear deceptively simple, even insignificant, to the Western mind. All Western countries have had the problem of shifting architectural gears since the Industrial Revolution. All have met with resistance, especially where strongly rooted traditions were involved, and all have come up with some kind of answer—even if the

answer is more often "international" than indigenous. We are inclined to view the motives behind the Japanese as similar. We are impatient with any theory about the all-but-inscrutable differences between us and the Japanese, and therefore continue to be amazed when we inevitably come up with the wrong answers by applying our own ethnic brand of logic to the Japanese culture. It is as naïve as expecting tigers to act like camels, but it is a popular blind spot in Western thinking. The greatest tribute I can give to Udo Kultermann is

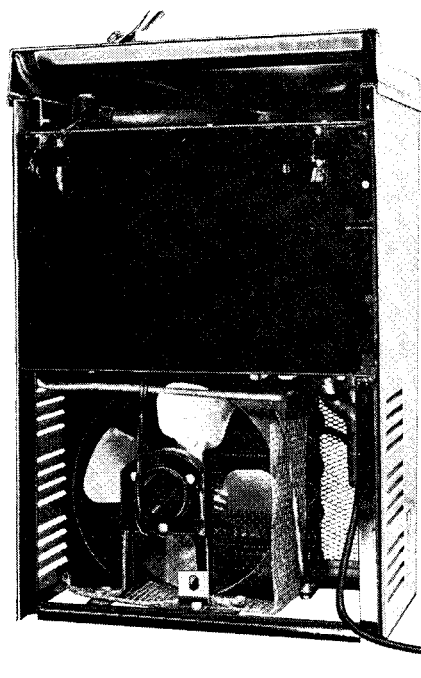
that in *New Japanese Architecture* he has driven a wedge into this thought barrier.

As Ruth Benedict, the cultural anthropologist, has pointed out in *The Chrysanthemum and the Sword*, the Japanese motivation is "situational": the action that maintains one's "proper station" in the hierarchy of nations. They do not share our enthusiasm for, or belief in, the motivation of abstract "principle"—equality and free enterprise in a democratic world. Whatever the shortcomings or illusions implicit in either of these points of view, it is certainly a fact that the Japanese are capable, in a given situation, of reversals so complete that the principle-oriented Westerner is left with his head swimming and his own ethnic standards cast afloat.

This capacity for reversal has shown itself, dramatically, in at least two major instances in Japanese history: during the Meiji reforms (1868) when, after two centuries of fiercely conservative isolationism, Japan converted within a few years to a nonfeudal economy and outlook that established her as a world power; and after the suicidal violence of World War II, when she was capable of an about-face that astounded the world, actually welcoming the victors without rancor or resistance. Japan is not given to pursuing lost causes, and "principle" as we understand the term has little to do with it; what the situation demands, in order to attain "one's proper place," is all-important.

Kultermann sees this phenomenon working in the narrow field of Japanese architecture since 1945. To his credit, he sees it in Japanese ethnic terms. Even so, I find his approach to his subject curiously one-dimensional, more a reflection of his own attitudes than of the qualities inherent in the subject he is presenting. For one thing, he is humorless—in a Bauhausian kind of way. The Japanese are not. He sees the various Japanese suggestions for creating a "Venice" in the Bay of Tokyo as only a question of economics or as a solution to the housing shortage, but never as a simple Japanese love of water, and an ability to accomplish both by the use of it. Yes, architecture is a very serious business, and this may account for the discrepancy between some of the Sunday-go-to-meeting pictures and the lived-in buildings one sees in Japan; it seems to be more than a little white lie to show the Harumi apartment houses in Tokyo without the daily clothes wash fluttering from every balcony. In a book

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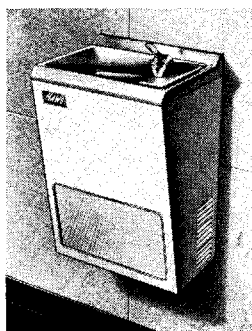
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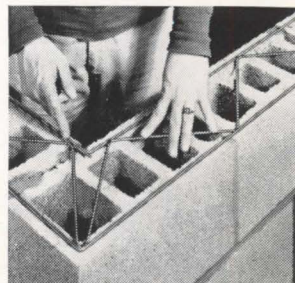
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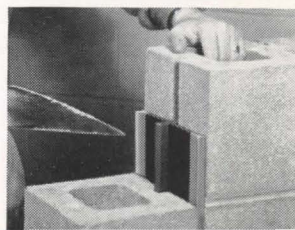
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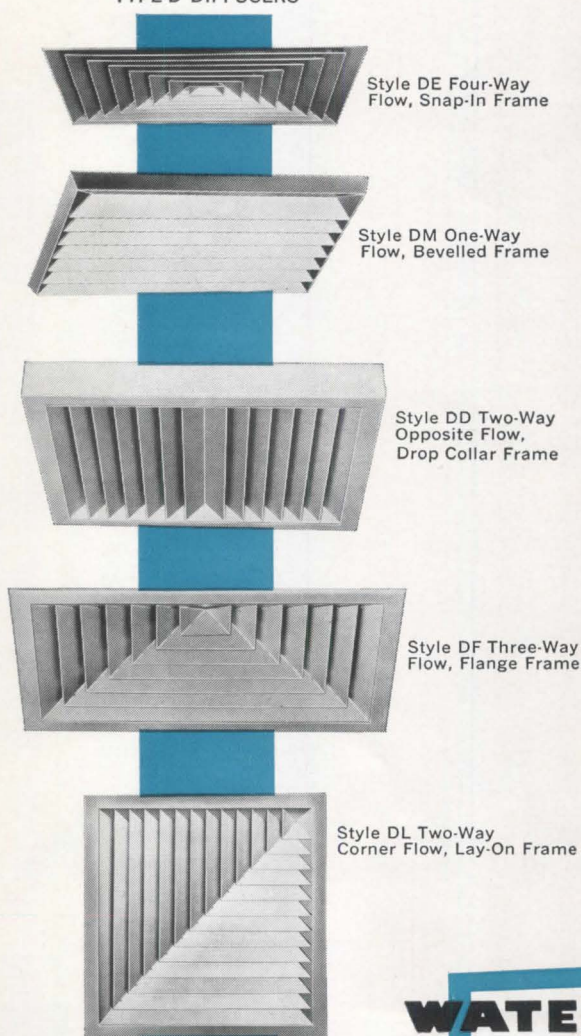
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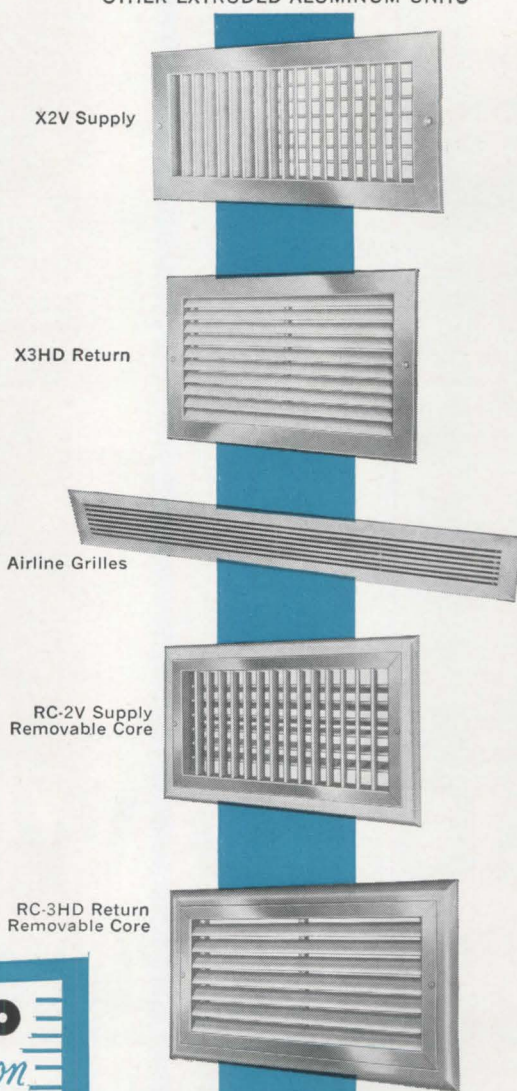
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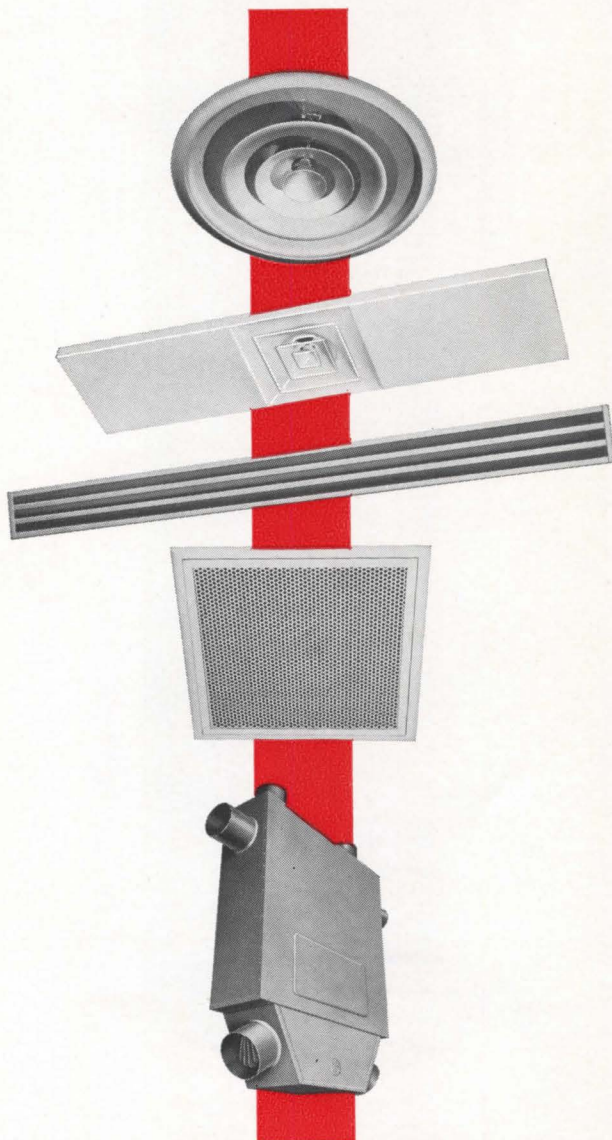
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that attempts to describe Japanese architecture in terms of social philosophy and the Japanese character, I think this should be shown. The Japanese people despise the multiple dwelling, and those clothes waving in the breeze are defiant symbols that the building does not fit and that they are not going to put up with it in the long run. I do hope this is not what Kultermann has in mind when he speaks of the "Japaneseness" of the buildings he is showing, because the Japanese really do not go for this kind of "togetherness" at all.

Another discrepancy between fact and photograph is the Sogetsu Art Center by Kenzo Tange. This is described in the text as "entirely devoted to the art of flower arrangement and a product of collaboration with the great master Teshihara." The photographs, however, studiously avoid the great master's part in the collaboration, which is unquestionable the tactful thing to do. Knowing the Japanese hatred of ridicule (against which acts of violence are still sanctioned, morally, if no longer politically), I shall also pass over the garden that accompanies that building. My point in

mentioning these examples is that there are dimensions—a "roundness" in the "Japaneseness," so to speak—that Kultermann seems to miss entirely, and which, if incorporated, might have made *New Japanese Architecture* a work of enduring stature rather than simply a topical analysis in one direction.

But even accepting a lineal approach, one cannot so easily overlook the obligation of a publisher to present it with clarity. I made the unpardonable, if innocent, blunder of attempting to check on the work of one of the 24 architects in Kultermann's "Who's Who." This was like pulling the cotter pin. For what had seemed like a possible format of a book came apart like a Chinese puzzle, and I was left with a series of odd-looking pieces. I found that the 24 who are written up under *Architects* are not really the ones whose work is shown in the pictures—that is, 13 are and 11 are not. On the other hand, seven other candidates who are not written up at all (although they may be mentioned somewhere—I no longer have the patience to thumb through the text again to find out) are copiously illustrated. Adding to the confusion, under *Fundamentals* are listed the eight "most important names" of Japanese architects who "had completed [their] training since the war . . . and today the scene is dominated by their buildings." In spite of this recommendation, the work of only four is shown, although seven are written up. (Masato Otaka has the distinction of being "most important," yet he is neither written up nor is his work shown.) Incidentally, only three or four of the eight actually did complete training since the war. (I have no way of checking on Mr. Otaka.) Wistfully, Kultermann observes that ". . . their names are still almost unknown in the West. . ." and I can think of at least one good reason.

Of course, it is possible to do a good, informative book without the conventional trappings, but this requires an orchestrated presentation that *New Japanese Architecture* does not have. Instead, it has a consistent illogic that exasperatingly beclouds its subjects. Nothing means anything, everything means nothing—a "conversation piece" perhaps. Who cares? Not the publishers. They deal in things that "matter." It reminds me of Jackie Gleason's classic parody of the "Thinking Smoker" advertisement. Dressed in white, Gleason draws back from an operating table. A nurse mops his brow; he removes a doctor's mask and lights a cigarette. The operation is over.

Continued on page 192

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Continued from page 190

"Well, doctor," says a voice. "Oh, I'm not a doctor," says Gleason, "I'm a . . ." (I'm sure he said publisher.) "Ah! A man who thinks for himself. What kind of cigarette do you smoke?"

I can recommend Kultermann's message and pictures to an hour of any architect's time. With proper editing and layout, it would make a first-rate, even brilliant, magazine series or pamphlet, but for my money (\$13.75) it does not add up to a book.

An Approach to Shell Design

Elementary Statics of Shells. *Alf Pfluger. Translated by Ervin Galantay. F.W. Dodge Corp., 119 W. 40St., New York 18, N.Y. 1961. 122 pp., illus. \$8.75*

This book is a translation of a well-known German text on elementary analysis of stresses in shell structures. The membrane theory is presented for shells of revolution, cylindrical barrel-roof shells, and hyperbolic paraboloids; the

bending theory is presented for shells of revolution, including cylindrical tank structures. The theory is fully described and the explanations are quite detailed, and tables of formulas for membrane stresses in many types of shells are given in the appendix.

The approach to structural theory, however, is typical of German texts. Only algebraic formulas are given. There are no examples of the calculation of stresses in structures using numbers to show the magnitude of forces and their relationships. If it is possible to use a differential equation rather than a straightforward numerical-equilibrium approach, the differential equation is given. The membrane stresses for HPs and shells of revolution give a very good picture of the structural action, but the membrane theory for cylindrical barrel shell-roof structures predicates a stress distribution that cannot exist. From a study of this stress distribution, the student gains the impression that barrel shells act in accordance with the membrane theory, which is far from the truth.

It would have been better also to present the beam method for barrel shells, so that the student could properly visualize the structural action of a shell, including both longitudinal stress and transverse bending moment. Algebraic formulas for the beam method are long and involved, and it is more convenient to use the properties of the shell at each of several segments; numbers rather than formulas, therefore, become necessary. Every effort should be made at the elementary stage of shell design to enable the student to work with real shells and real numbers, rather than with algebra.

In spite of what this reviewer considers rather serious faults in the approach, the book is important for every engineer who aspires to design shell structures.

MILO S. KETCHUM

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Insight into Urban Problems

The Squeeze: Cities Without Space. *Edward Higbee. William Morrow & Co., Inc., 425 Park Ave. South, New York 16, N. Y., 1960. 348 pp. \$5.95*

The "squeeze" of the title is meant to be understood figuratively as well as literally. Professor Higbee considers that urban man's lack of foresight and lack of respect for his environment have been responsible for many of the unpleasant pressures that he now faces.

Continued on page 194

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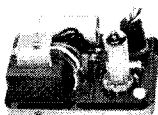
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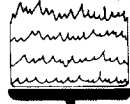
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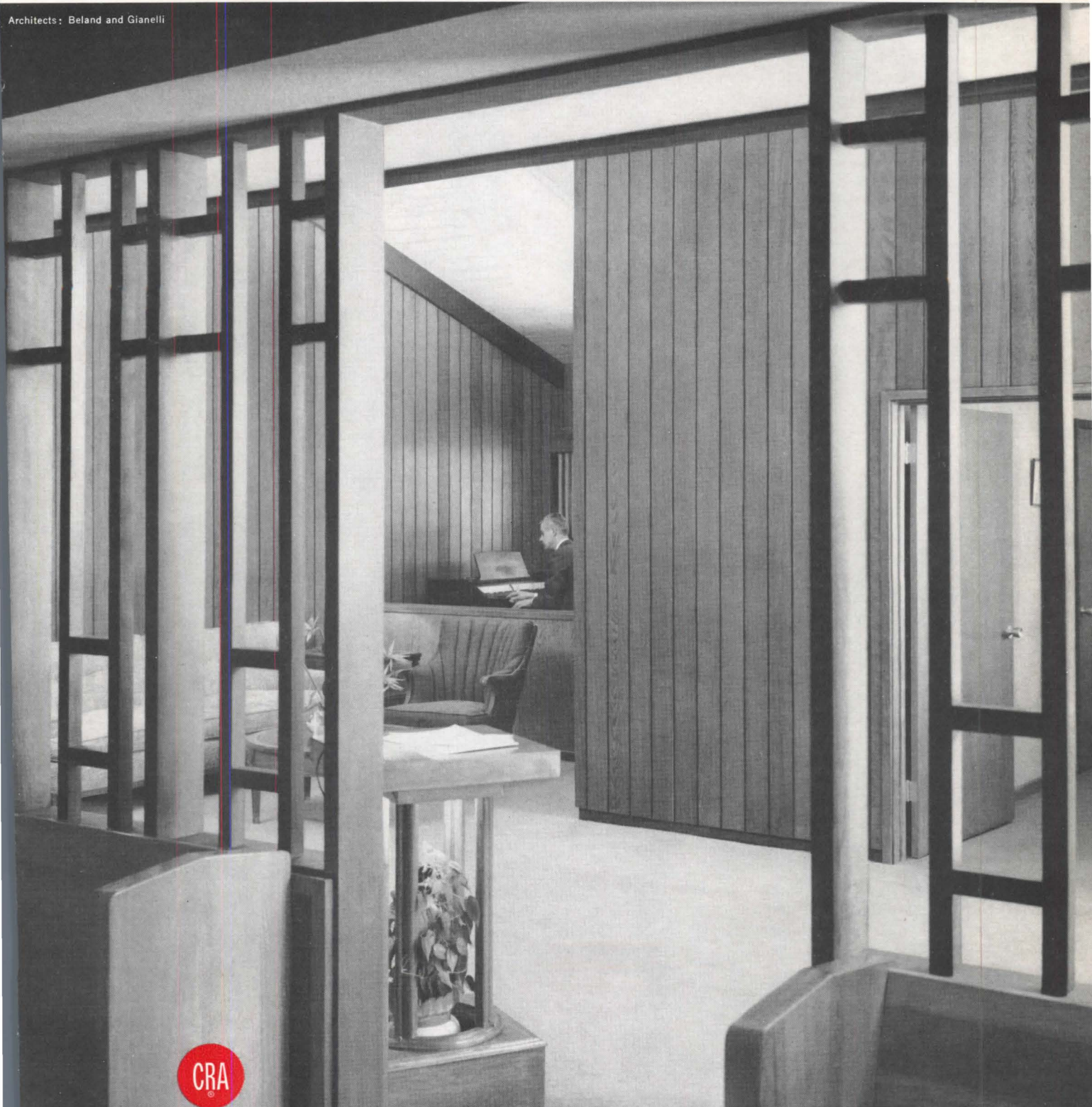
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Continued from page 192

As a geographer and agronomist, he brings to his survey of metropolitan America a strong and understandable bias toward sensible land use. His earlier studies were primarily concerned with agriculture and rural life; perhaps as a result, he approaches the urban scene with the attitude of a conservationist, seeking to preserve what is good and suggesting some changes to control erosion of the city's environment.

This is a survey, written in terms readily understandable to the layman, and concerned with the whole pattern of urban life rather than with any single aspect or problem. Its strengths and faults can both be traced to this source. As an introduction to urban phenomena, it is highly recommended for its clarity, interest, and because it is filled with numerous sharp insights into our assets and our failure to take advantage of them. Because it tries both to give a description of what is happening throughout the urban areas of the nation and to suggest answers to a host of urban problems, it does not come to grips with any one problem in the detail necessary for a comprehensive solution.

This reviewer, for one, would have preferred greater concentration on the urban area that Higbee appears to know best: the fringe between city and country where two patterns of life merge and conflict. This fringe area is the most rapidly changing part of our environment and is perhaps the one place where judicious action has the greatest chance of reaping lasting rewards in the form of future amenities.

An example of one of Higbee's best insights into the nature of this fringe area is to be found in a section entitled "Symbiosis," where he describes the tangled relationships between commercial mushroom farming and suburban housing developments. Topsoil scraped off the land before new houses are built is delivered to mushroom farmers who use it to cover their fields. After a single year, the soil is no longer suitable for mushrooms because of the danger of micro-organic infection, and back it goes to the suburbs to enable the new homebuyer to purchase enriched loam for the bare surface left by the developer.

As a survey of urban and suburban trends, with many delightful examples of the peculiar things done by urban man, this is a book well worth the reading. My personal wishes were that the author had scattered his shots less widely, but this need deter neither the interested layman nor the professional planner. My personal

testimonial to *The Squeeze* is that, immediately after reading it, I was impelled to read Higbee's earlier volume, *The American Oasis*.

DAVID A. GROSSMAN
Advance Planning Associates
Cambridge, Mass.

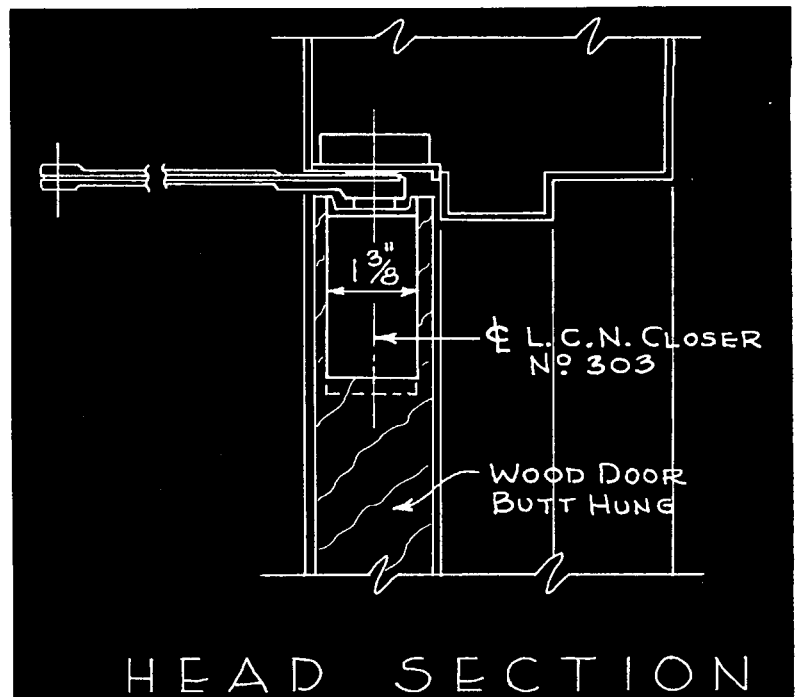
The Philadelphia Story

Penn's Great Town: 250 Years of Philadelphia Architecture. *George B. Tatum.* Foreword by *Theo B. White.* Sponsored by the Philadelphia Art Alliance and the College of Fellows of the AIA. Uni-

versity of Pennsylvania Press, 3436 Walnut St., Philadelphia 4, Pa., 1961. 352 pp., illus. \$12.50

This is an exemplary book: not only is it handsome, well illustrated, authoritative, and properly indexed, it is also readable. Dr. Tatum's narrative is not just informative, it flows. It is not easy to compress 250 years of architecture into one book; doing so means making selections, and making selections involves making judgments. No small

Continued on page 196



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merit of this book is that the judgments are admitted and are well stated; there is neither scholarly omniscience nor evasion. The scholarliness is there, but it has been assimilated.

The illustrations are for the most part reproductions of rare, or at least unusual, prints and drawings. They were chosen from among several thousand. Although they are interesting, I have one fault to find, and one regret. The fault is that the slick paper is not suitable for reproduction of water color, lithography, or etching; a great deal of quality is lost. The regret is that these drawings were not accompanied, as they

could often have been, by small photographs. An example is the picture of Cliveden being attacked by the British; there is more smoke than house. A photograph of it today would show what it looks like. It would also have been both delightful and helpful if Grant Simon had made a "location map" of Philadelphia similar to the one he made for the Philosophical Society's *Historic Philadelphia*.

What emerges from text and pictures is the way Philadelphia has negligently tossed away so much of its architectural heritage. This has been the case in all our cities, of course; but it seems particularly unfortunate in Philadelphia,

which has been a sort of microcosm of the development of architecture in the United States. The current twaddle about "preserving the character" of "ye olde cytie" by keeping some second-rate row houses does not make up for past losses. Even in very recent years this toll has been high, particularly in structures now unfashionable—the old Jayne Building, the work of Frank Furness, Wilson Eyre, and others.

Although this is a book for the architect, it is also a good introduction to the main outlines of the history of the city, by way of bibliography. The sponsors, as well as Dr. Tatum, deserve much credit for having kept the essential character architectural at a time when it is all too easy to wander down the fulsome byways of social sciolism.

HENRY S. CHURCHILL
Architect-Planner
Philadelphia, Pa.

Human Engineering

The Measure of Man: Human Factors in Design. Henry Dreyfuss. Whitney Library of Design, 18 E. 50 St., New York 22, N. Y., 1960. 32 pp., illus. \$4.95

Although basically intended for the industrial designer and that new phenomenon, the "human engineer," this portfolio of basic anthropometric data should also prove invaluable to the architect. The series of charts presents in a concise and compact way a great variety of data on the sizes, capabilities, and tolerances of people, collected from a great number of scattered sources. Separate figures are given for men, women, and children of various ages, and for the high and low extremes in each case. Accompanying the charts (and the two life-size diagrams) is a text that every user should read with care. This discusses the limitations and the generalized applications of the data, as well as the general problems involved in a scientific approach to designing for people.

The book should prove especially useful to the architect when he is faced with such problems as detailing fittings, furniture, hardware. Rather than resorting to the elementary expedients of the six-foot rule or "the way we did it on the last job," architects could profit both from the data and from the approach to accommodating people outlined in the text.

Although the author is to be congratulated for reducing a mountain of information to a very compact and useful

Continued on page 198

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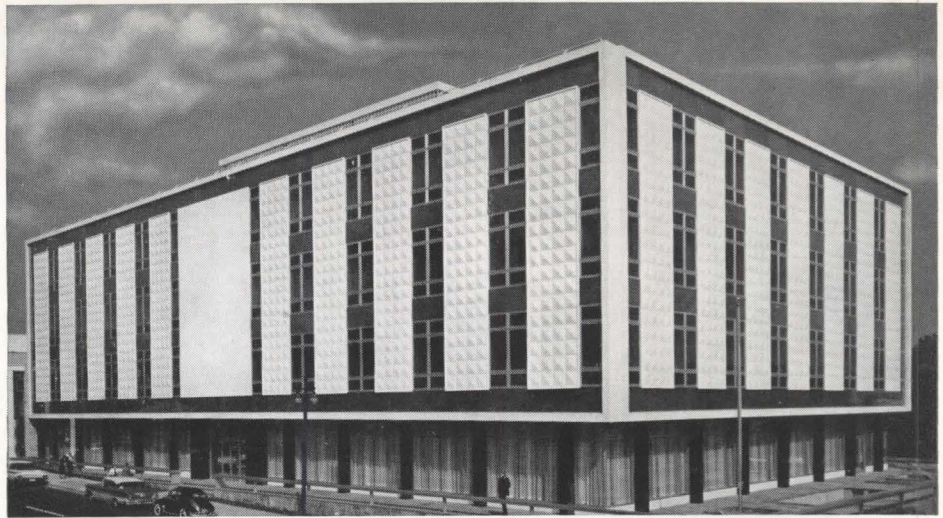
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Office Building for Remington Rand Division, Sperry Rand Corporation, Washington, D. C. **Architects and Engineers:** Mills, Petticord & Mills, Washington, D. C. **Contractor:** Joseph F. Nebel Co., also of Washington, D. C. **Concrete Panel Manufacturer:** Earley Studio, Inc., Rosslyn, Virginia.

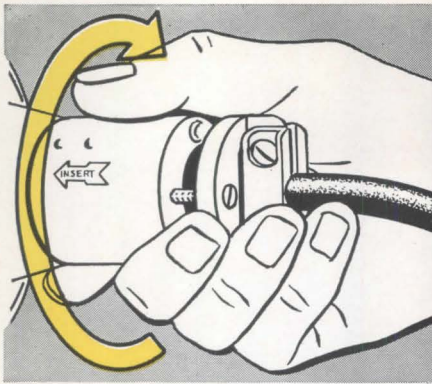
feature precast white concrete facing panels in the facade of this handsome Washington, D. C., office building. Made of ATLAS WHITE portland cement and quartz aggregate, the 4 x 8-foot panels (5 inches thick) use 2-inch surface projections in 2-foot squares to create an interesting pattern. The surface is an exposed aggregate finish. Columns are faced with similar panels, without the projections. All panels are anchored to concrete masonry. □ Today, more architects are discovering the design versatility and construction economy of easily maintained precast concrete. Any desired size, shape, color, texture or pattern can be achieved. Anchoring of panels to any structural frame is fast, simple and trouble-free. □ For specific information on precast white concrete panels, facings and cast stone units, consult your local precast concrete manufacturer. For a comprehensive new 32-page, fully illustrated brochure titled "White Concrete in Architecture," describing properties and installation details, write Universal Atlas, 100 Park Ave., New York 17, N.Y.

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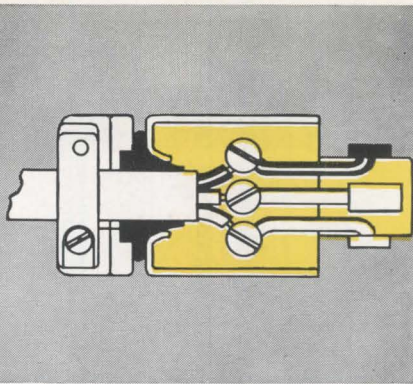


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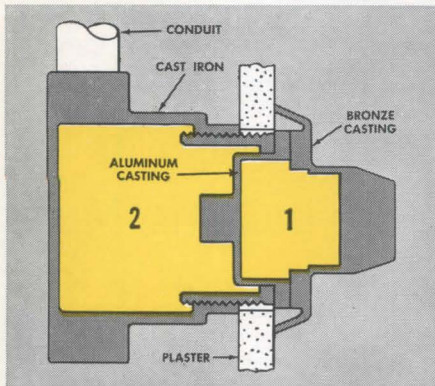
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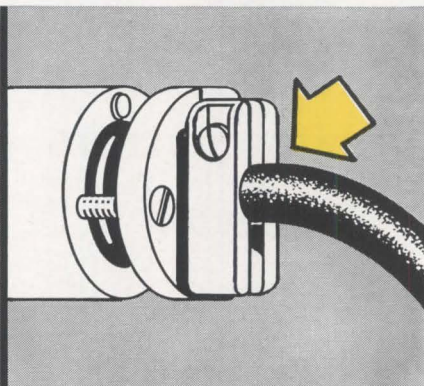
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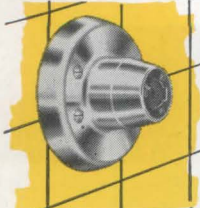
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Continued from page 196

form, there are several shortcomings that somewhat impair its usefulness. For the serious user, there is the problem of going back to the original source of the data. Although there is a basic bibliography of "human factors" literature, this bibliography is in no way related to the data. This is both a nuisance and a danger, particularly since the author goes to some lengths to point out that such data is all too susceptible of misuse if used as incontrovertible fact; various bits of data have varying degrees of validity and varying contexts.

In the attempt to be all-inclusive, the book also contains some application data of dubious value. Ironically enough, these for the most part are architectural "standards" gathered from the various architectural handbooks, which must in this context be regarded as second- or third-hand sources, not as basic-research sources. If the architect will only ignore these "standards" and use the basic data intelligently and imaginatively, we may free ourselves from another "specifications" stranglehold, and produce better architecture.

It is also a pity that the book itself was not designed or "human-engineered" a little more imaginatively, so that it might have served as an illustration of the principles it espouses.

ALEXANDER KIRA
Assistant Director

Center for Housing and Environmental Studies
Cornell University, Ithaca, N. Y.

A Unique Richness

Norwegian Design: From Viking Age to Industrial Revolution. *Carsten Hopstock. Dreyers Forlag, Oslo, 1961. Distributed by Taplinger Publishing Co., Inc., 119 W. 57 St., New York 19, N.Y. 212 pp., illus. \$15*

This is a beautiful book, published in Norway but written completely in English. It deals with the broad spectrum of design of all the applied Norwegian arts, not just architecture, covering the subject in four main sections: Viking times and Middle Ages, Renaissance, Baroque and Rococo, Louis XVI and Empire.

To me, the earliest sections are the most informative. Here is the key to the heritage of the people, and to their culture of today. They have a great respect for natural materials, knowing when to leave off decoration just as when to use it as an embellishment.

In Viking days, wood was the domi-

Continued on page 200

Toronto's new airport in the round



This is the way Toronto International Airport will look with all four aeroquays in operation. The second floor is the main level of the aeroquay. It contains the ticket lobby, shops, lounge, coffee shop, and departure areas, as well as observation decks. John B. Parkin Associates, Consulting Architects and Engineers to the Department of Transport, H. J. Connolly, Director of Construction Branch, W. A. Ramsay, Chief Architect. General Contractor: Foundation Company of Canada, Ltd.

*As adaptable as the steel that frames it, Toronto
International Airport is designed to grow as jet traffic grows*

Toronto's new terminal calls for a central administration building surrounded by four aeroquays. These aeroquays will house all the passenger facilities and operations of the domestic and foreign airlines flying in and out of Toronto.

Shaped like a doughnut, each steel-framed aeroquay will be two buildings in one, 660 feet in diameter. A roadway system will lead vehicles, by underpasses under the aircraft apron, directly to these airline buildings.

The first aeroquay is scheduled for completion in 1962. Sites for three others are available, and these aeroquays will be built as needed.

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All connections in the shop were welded. For just the 6,000 tons of column sections with welded cover plates, York Steel Construction welded some 40,000 lineal feet of steel. All rigid connection plates were field welded to the column sections at the site.

Steelwork erected in dead of winter

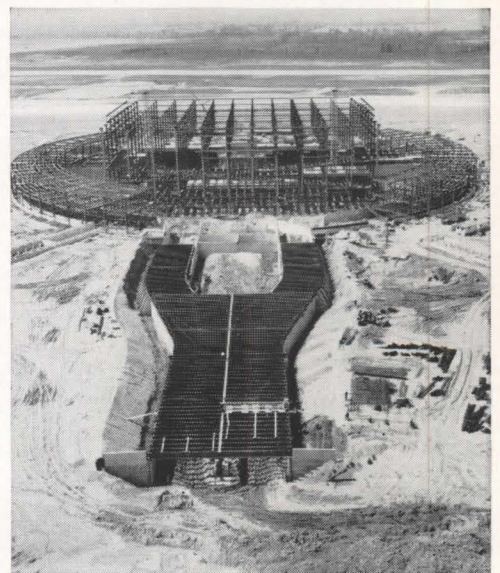
To maintain weld quality in frigid weather, York Steel Construction pre-heated and post-heated the steel, using mobile banks of oxygen and propane. All welds were ultrasonically tested at the site; no failures were reported. Although the winter was severe, only 3½ weeks of erection time were lost to the bad weather.

15,000 tons in under 180 days

York Steel fabricated and erected some 15,000 tons of shapes and plates for aeroquay No. 1. All steel went up in under 180 days. Bethlehem supplied 9,803 tons of wide flange, and 196 tons of plates. The balance of the tonnage was obtained from Canadian sources.



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Steel framework of aeroquay No. 1. Steel Fabricator and Erector: York Steel Construction, Ltd.

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BETHLEHEM STEEL



Continued from page 193

nant material; little has survived from this period because of the ravages of time and of Danish plunderings. The pagan *hov* temples, however, were the nucleus of later churches begun in medieval times, some of wood and some of stone. The main Norwegian contribution to architecture was the wooden stave church; about 700 were constructed although only 30 remain today. Their roofs are tier upon tier of steep gables; their doors are richly decorated in ser-

pentine and dragon motifs. Many of the stave principles subsequently found their way into dwelling design.

The Norwegians avoided stone vaulting to a greater degree than was common in other countries of the time. However, there were some interesting exceptions—Trondheim Cathedral, "the supreme achievement of Norwegian architecture," and some secular buildings such as Haakon's Hall in Bergen.

Furniture development was generally similar to that in the rest of Europe.

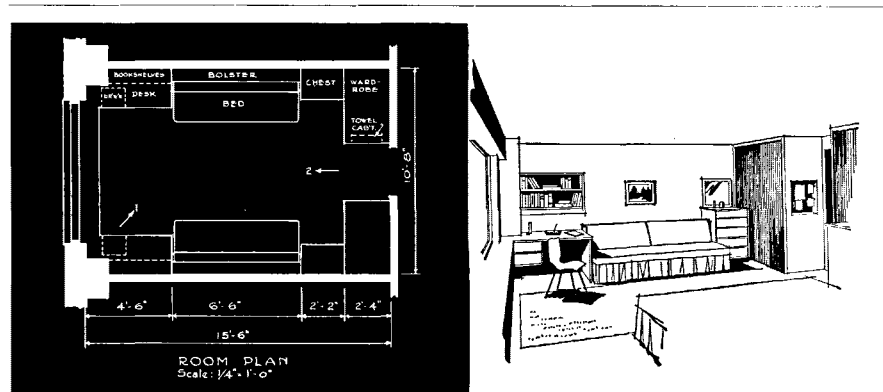
Tub chairs, however, were used in Norway from Viking days to the present, being easy to make from the hollow tree stems. During the Renaissance, furniture was influenced by the Dutch, and carpenters were no longer allowed to build furniture, which had theretofore been very strong and massive in character. Subsequently, furniture design was influenced by England, then France.

The Reformation tempered Renaissance architecture in Norway. In fact, beginning in 1537 there was considerable destruction of church decorations, and an "impoverished view of art." As there were more churches built than needed in the Middle Ages, there was little religious building in the Renaissance era, except in towns.

The author notes that all Norwegian buildings were cold in winter, and he suggests that, as a result, "beer and spirits became a universal panacea and formed the bright spots in the dark months." Hopstock also touches on the unique real estate laws that permit peasants hereditary rights to their land even to this day.

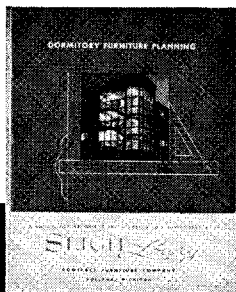
Norway was not a pace-setter in design, but it has always had a unique richness and we have much to learn from it. This book is a good introduction; its only major fault is that it does not refer to the 20th Century.

JEFFREY ELLIS ARONIN
Architect and Author
New York, N.Y.



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For the Visiting Fireman

The New Architecture of Europe. G. E. Kidder Smith. Meridian Books, Inc., 12 E. 22 St., New York 10, N.Y., 1961. 361 pp., illus. \$1.95 (paperbound)

A guidebook at last worth its weight is Kidder Smith's new paperback (original in this edition, and made possible by the author's Arnold W. Brunner Scholarship from the New York Chapter of the AIA). In his crisp and insightful style, he discusses 225 noteworthy recent buildings of Western Europe. He also summarizes the development and current status of contemporary architecture in the 16 countries from which work is included.

The book is intended primarily as a guide. Selections are grouped according to city (keyed to maps of the countries), although indexed also by building type and architect. Since each building is illustrated with a single photograph, and

Continued on page 204

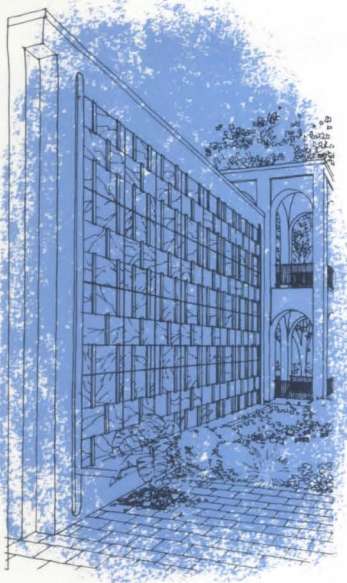
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*Turn page for news about
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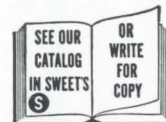
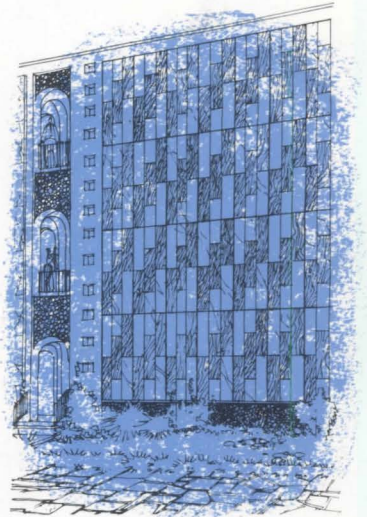


marble-faced precast panels

Since building became an art, marble has been regarded as the blue blood of building materials. Perhaps its aristocracy has gained too much credence. Certainly its consideration has often been denied because the expense was thought to be too high. Discounting its tangible prestige value, the fact that it has been proven again and again to pay for itself in lower upkeep could not, in many cases, overcome the dif-

ference in initial cost. Now, the development of marble-faced precast panels has virtually eliminated any difference in first costs, while actually increasing the big difference in beauty, durability and low maintenance. Even more important, however, is the fact that this precast process opens many wondrous new ways to use marble. Marble facings may be used in varying sizes

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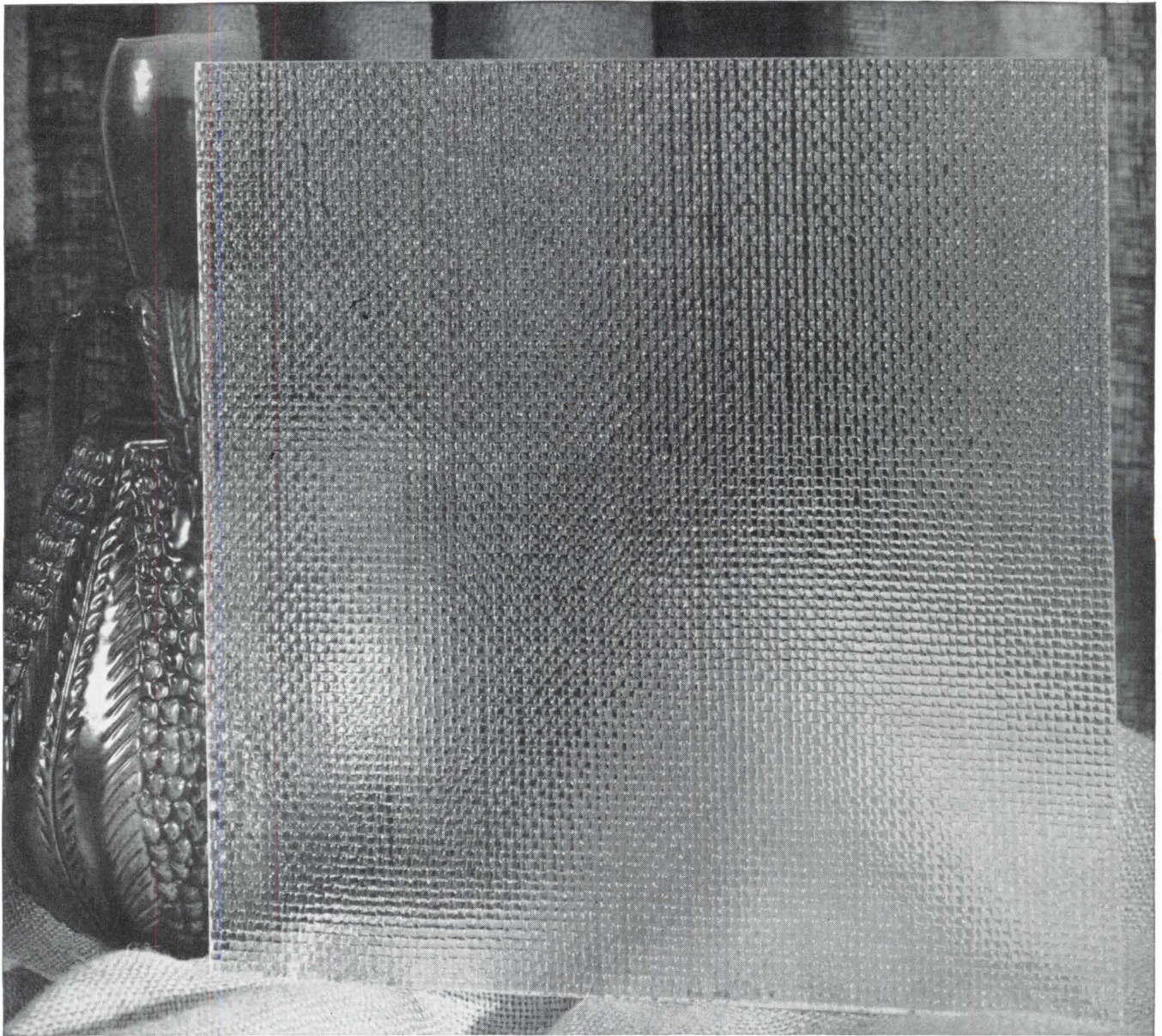


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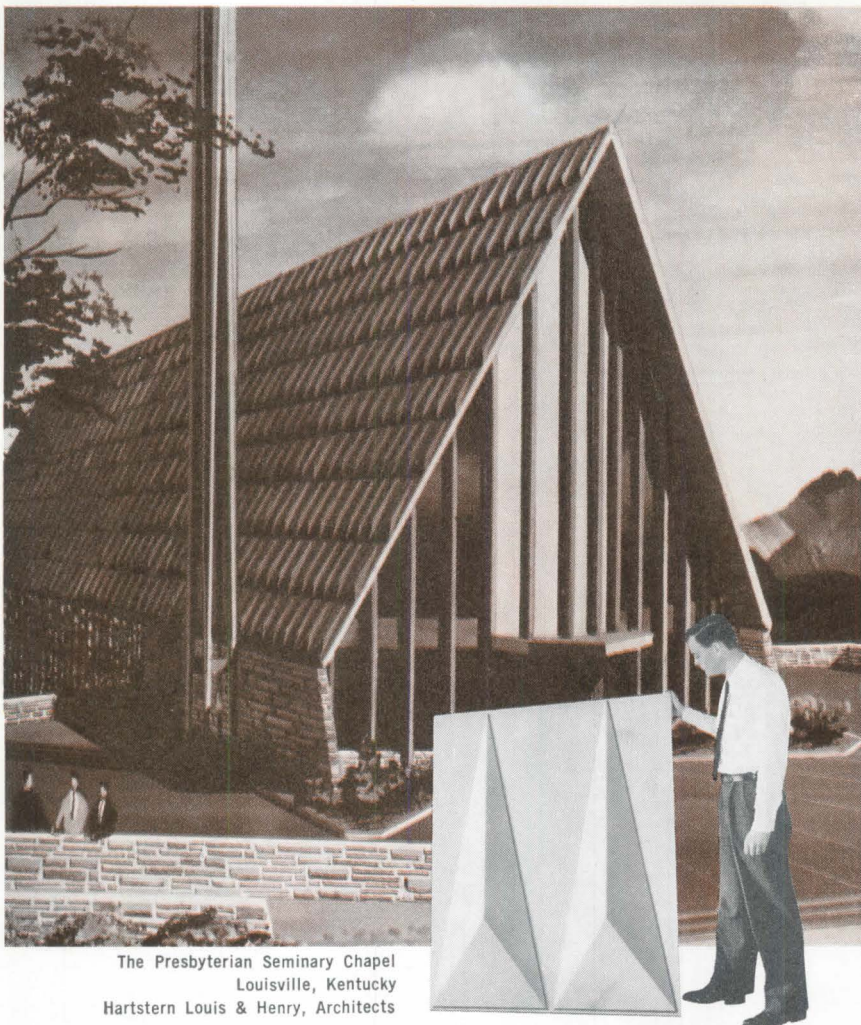
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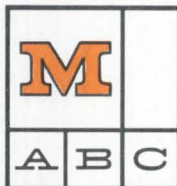
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Continued from page 200

since there are no plans or sections, the book is obviously no substitute for visiting—for sketching, looking, touching, pacing, photographing, and whatever else a visiting fireman will do. Several blank pages at the back of the book are for notes, sensible indeed for an architect's guidebook. Most unusual—and making this a living guidebook—are names, addresses, and phone numbers of the leading architects and periodicals in each country.

His 225 chosen works, Kidder Smith writes, are not necessarily of genius, each one, however, is stimulating and significant. Together they give the traveler a checklist of "don't miss" items for each locality. For the student at home, they give a quick sketch of the quality of work going on in each country, in building types throughout Europe, and in the major offices. There are no private houses, exhibitions, or shops included: houses, because of the inconvenience to owners of standing siege to pilgrims; exhibitions, because they may be here today and gone tomorrow (this really is a traveler's guide—no frustration of arriving to find the project dismantled or dispatched); and shops, because a change of ownership may alter the scheme radically overnight.

"Suggestions or corrections" would be appreciated, writes Kidder Smith. With the American's zest for exploring the unbeaten path, and his pride in discovering the new, and with the thinking that Kidder Smith's perceptive comments will arouse, the author may well receive memos on the note pages from the back of his book. Perhaps there will be addenda—in the manner of an encyclopedia's book-of-the-year. Considering the richness and usefulness of this little volume, and at a pauper's price, anything is possible in paperbacks.

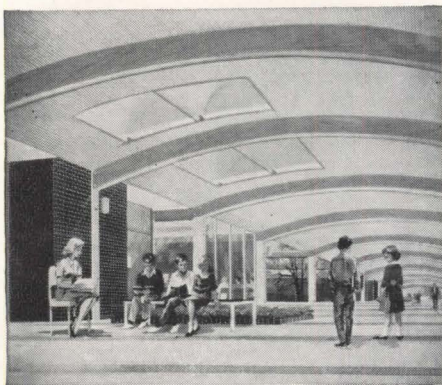
E.P.

Before the Buttresses Were Built

The Construction of Gothic Cathedrals: A Study of Medieval Vault Erection.
John Fitchen. Oxford University Press.
417 Fifth Ave., New York 16, N. Y.,
1961. 344 pp. illus. \$10.10

Few buildings fire men's imaginations as do the Gothic cathedrals. Their soaring naves, rising to one-hundred-and-fifty or more feet, and the tracery of their great windows, apparently defy all rules of gravity and engineering. The aesthetic impact, the emotional experience, and

Continued on page 207



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Continued from page 204

the social and religious symbolism inherent in the cathedrals have been discussed and examined in great detail. Oddly enough, scant attention has been paid to the problems of construction faced by their builders.

The question of centering the arches, of supporting the vaults, of shoring and bracing the walls during construction before flying buttresses and roof tied the building together, have been by-passed. The finished product has made us forget that the builder had to keep his framework to a minimum. The cathedrals were in daily use long before they were completed. This meant that the naves had to be kept clear of scaffolding. It often took decades, if not centuries, to erect a cathedral. During this period, the unfinished structure, already in use, had to be self-supporting as no temporary framing would last the required period. The Gothic builder thus had to solve a number of problems that are enough to give pause to a 20th-Century architect-engineer who has power equipment, steel scaffolding, and prestressed concrete to work with. To the 12th- and 13th-Century builder limited to wood, masonry, and mortar, the problems must have been all but insurmountable. The fact that they could be solved, as the finished cathedrals prove, must place the Gothic craftsman high on the order of builders and architects.

John Fitchen, in what can only be defined as an architectural detective story, fully explores the problems confronting the medieval vault erectors and uncovers their solution. On the surface, this could easily have been a formidably erudite book in the deadliest and most pedantic of styles. Vault erection may not be a subject to fire men's souls but Fitchen makes it fascinating without sacrificing content. This is a book that no serious student of architecture will want to miss. It is of interest not only from the historical viewpoint, but also for the relevance to today of some of the principles discussed. For the architectural historian, the author includes what must be regarded as a really comprehensive bibliography on medieval building methods. Various appendices deal with such items as medieval mortars, tower vaults, lifting devices, or the occurrence of putlog holes. This book will undoubtedly become one of the basic reference works on medieval construction practices and on the problems of Gothic builders.

DR. FREDERICK HERMAN
Architect
College of William & Mary
Norfolk, Va.

OTHER BOOKS TO BE NOTED

The Architecture of Michelangelo. James S. Ackerman. The Viking Press, Inc., 625 Madison Ave., New York 22, N. Y., 1961. 156 pp., illus. \$12.50

Builders' Hardware Handbook (Second Edition). Adon H. Brownell. Published for *Hardware Age* by Chilton Co., 56th and Chestnut Sts., Philadelphia 39, Pa., 1961. 262 pp., illus. \$8

A practical encyclopedia "for architects, hardwaremen, teachers, students, and contractors." Contents include standard and special products, materials, scheduling, specifying, sales, and service.

The Consulting Engineer. C. Maxwell Stanley. John Wiley & Sons, Inc., 440 Park Ave. South, New York 16, N. Y., 1961. 258 pp. \$5.95

Two-part discussion of the problems involved in a consulting engineering practice. Part I is concerned with professional relationships: to the client, other consultants, and the public. Part II deals with internal problems: organization, personnel, facilities, procedures and management.

Design at Work: Its Forms and Functions. Edward A. Adams, David Van Commen, George Pappas. Edited by Edwin W. Zoller. Center for Continuing Liberal Education, Pennsylvania State University, University Park, Pa., 1961. 92 pp., illus. \$5

An intelligent study course on the shaping of the visual environment. Some of the subjects in the 10 "sessions" are the machine and a mass-production economy, the reappearing artist-craftsman, the planned and unplanned community, and the concepts of contemporary architecture. Chapters conclude with "questions for study and discussion"; a bibliography refers the layman to a good selection of the classics on design.

Family Shelter Surveys: Guide for Architects and Engineers. Executive Office of the President, Office of Civil and Defense Mobilization, Washington 25, D. C., 1960. 52 pp., illus. (paperbound)

Procedures and standards for (1) evaluating the fallout-shelter potential of existing structures, and (2) modifying structures from the standpoint of radiation shielding and habitability to improve their worth as fallout shelters. These same procedures and standards may be used for preliminary design to incorporate shelter into new structures.

Frame Analysis: A Unified Introduction to the Matrix Analysis of Structures. A. S. Hall and R. W. Woodhead. John Wiley & Sons, Inc., 440 Park Ave. South, New York 16, N. Y., 1961. 247 pp., diagrams. \$8.50

The mathematical analysis of structural frames. Flexibility analysis and stiffness analysis are discussed in one unifying treatment and are shown to be reciprocal approaches to the problem.

How to Cool Your House. A Sunset Book. Lane Book Co., Menlo Park, Calif., 1961. 95 pp., illus. \$1.95 (paperbound)

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The Impressionists. François Mathey. Frederick A. Praeger, Inc., 64 University Place, New York 3, N.Y., 1961. 225 pp., illus. \$5.75

A history of the Impressionist movement, by the Chief Curator of the Museum of Decorative Arts in Paris. More than 80 color plates; also black-and-white illustrations.

Japanese Homes and Their Surroundings. Edward S. Morse. Introduction by Clay Lancaster. Dover Publications, Inc., 180 Varick St., New York 14, N.Y., 1961. 372 pp., illus. \$2 (paperbound)

Kennel Building and Plans (Sixth Edition). Will Judy. Judy Publishing Co., Box 5270, Chicago 80, Ill., 1961. 112 pp., illus. \$4

Life in the dog house, technically speaking. Quaintly written, with many such homilies as, "Do not judge a man by his fine front lawn or the amount of his bank account so much as by the dog house in his back yard."

Open Stage Theatre Check List. The Board of Standard and Planning for the Living Theatre (A Committee of Theatre Specialists Organized by the Greater New York Chapter of ANTA; Jo Mielziner, Chairman). Room 515, 1545 Broadway, New York 36, N.Y., 1961. 34 pp., illus. (paperbound)

Modern Physics Buildings: Design and Function. (A project of the American Association of Physics Teachers and the American Institute of Physics, supported by a grant from the Educational Facilities Laboratories, Inc.) R. Ronald Palmer, Project Director; William Maxwell Rice, Project Architect. Reinhold Publishing Corp., 430 Park Ave., New York 22, N.Y., 1961. 324 pp., illus. \$13.50

Prestressed Concrete Simply Explained. H. Kaylor. John Wiley & Sons, Inc., 440 Park Ave. South, New York 16, N.Y., 1961. 158 pp., illus. \$5.25

A British exposition of the principles, methods, development, and design of prestressed concrete. Numerous design examples are given and the text is written with great clarity.

The Sculpture of Marino Marini. Eduard Trier. Frederick A. Praeger, Inc., 64 University Place, New York, N.Y., 1961. 172 pp., illus. \$12.50

The evolution of Marini's work, from earliest sketches to most recent lithographs and sculptures, by a noted European art critic. Special limited edition containing an original Marini lithograph is available at \$75

A Short History of Technology: From Earliest Times to A.D. 1900. T.K. Derry and Trevor I. Williams. Oxford University Press, 417 Fifth Ave., New York 16, N.Y., 1961. 782 pp., illus. \$8.50

A comprehensive one-volume work that relates the history of technology to history in general, with the result that it is "as much a technological history as it is a history of technology." More than 350 illustrations.

Siena: City of the Virgin. Titus Burckhardt. Oxford University Press, 417 Fifth Ave., New York 16, N.Y., 1961. 136 pp., illus. \$12.50

The story of a city which, to the author,

exemplifies "the spiritual development of the Christian western world from the Middle Ages up to the present day." The noted historian draws on the evidence of chronicles, letters, and documents, as well as works of art, to describe various periods and to illustrate such great communal achievements as the building of the cathedral.

Simplified Engineering for Architects and Builders (Third Edition). Harry Parker. John Wiley & Sons, Inc., 440 Park Ave. South, New York 16, N.Y., 1961. 325 pp., diagrams. \$7

Latest revision of book originally published in 1938, devoted mainly to the solution and explanation of practical engineering problems.

Trig, Log, Antilog, and Log of Trig Functions: 6 Place Tables. Vest-Pocket Library. Ottenheimer Publishers, Inc., 4805 Nelson Ave., Baltimore 15, Md., 1961. 192 pp. \$1

Clearly-printed tables in a compact volume (2 $\frac{5}{8}$ " x 5 $\frac{5}{8}$ "). Indexed in the margin for easy use.

NOTICES

New Addresses

AISNER AND ATWOOD, Architects, 920 Park Square Bldg., 31 St. James Ave., Boston 16, Mass.

GEORGE ALBERT LYON, Architect, 5121 E. Flower St., Phoenix, Ariz.

JAMES MOUNT, Architect, 2452 Wilshire Blvd., Santa Monica, Calif.

RENEWAL PLANNING ASSOCIATES, INC., Urban Redevelopment Specialists, 37 Wall St., New York, N.Y.

RUNNELLS & WINHOLTZ, Planning Consultants, Railway Exchange Building, Kansas City 6, Mo.

STONE, TOMS & PARTNERS, 11-15 Farm St., London, W. 1, England.

NORVAL WHITE, Architect, 33 E. 61 St., New York 21, N.Y.

PAUL D. WOODWARD & ASSOCIATES, Suite 905, Medical Arts Building, 142 W. York St., Norfolk, Va.

PARKINS, ROGERS & ASSOCIATES, Planning and Urban Renewal Consultants, 2889 W. Grand Blvd., Detroit, Mich.

UNITED ENGINEERS, 2139 S. Sheridan, Tulsa, Okla.

WEFEL AND WEFEL, Architects and Engineers, 3717 Lee Road, Shaker Heights, Ohio.

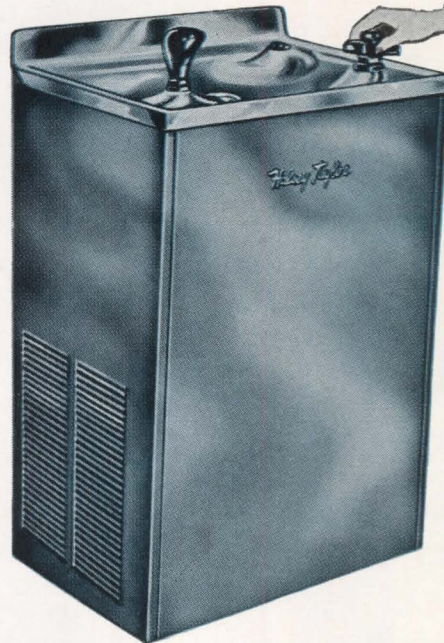
New Firms

W. E. GREEN, Architect, 130 W. Liberty Drive, Wheaton, Ill.

JOHN A. BOWER, JR., FREDERICK M. FRADLEY, principals in firm of BOWER



It started 50 years ago



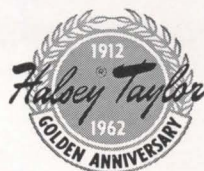
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AND FRADLEY ARCHITECTS, 114 W. Coulter St., Philadelphia 44, Pa.

NORMAN HOBERMAN, JOSEPH WASSERMAN, principals in firm of HOBERMAN AND WASSERMAN, Architects, 40 E. 50 St., New York 22, N.Y.

PAUL CONKLIN QUIGG, Architect, 2060 N. 14 St., Arlington 1, Va.

RICHARD W. SNIBBE, Architect, 200 E. 37 St., New York, N.Y.

HARRY E. COOLER, DON B. FISHER, ROBERT E. LAKIN, WILLIAM C. SCHUBERT, principals in firm of ARCHITECTS COORDI-

NATE, 4845 College Ave., Indianapolis, Ind.

HOWARD BARNSTONE AND PARTNERS, Architects, 630 Esperson Bldg., Houston 2, Tex.

KENNETH H. DILLON, DOUGLAS A. BROWN, principals in firm of DILLON & BROWN, Architects, 744 N. La Cienega Blvd., Los Angeles 46, Calif.

ALFRED M. FISHER, ROBERT B. METCALF, principals in firm of FISHER & METCALF, Architects, 3415 Fulton Ave., Box 4287, Sacramento 21, Calif.

HARRY H. GRAEF, MARTIN M. MINTZ, principals in firm of GRAEF-MINTZ & ASSOCIATES, Architects, 711 N. Fayette St., Alexandria, Va.

HALE ASSOCIATES, Architects, Suite 915, 407 S. Dearborn St., Chicago 5, Ill.

JACOB KOTON, WILLIAM J. DONOVAN, principals in firm of KOTON AND DONOVAN, Consulting Engineers, Crossroads Plaza, West Hartford, Conn.

ANGUS MCCALLUM, Architect, 1221 Baltimore Ave., Kansas City, Mo.

FRANK SACK ASSOCIATES, Industrial Designers, 900 Summit, Minneapolis 5, Minn.

EDWIN M. STITT, Architect, 8528 Mentor Ave., Mentor, Ohio.

ROBERT TOMB, Architectural Rendering, 1540 Philadelphia St., Indiana, Pa.

ROBERT VENTURI, WILLIAM SHORT, principals in firm of VENTURI AND SHORT, Architects, 335 S. 16 St., Philadelphia 2, Pa.; 240 E. 61 St., New York 21, N.Y.

WILLIAM L. WINCHELL AND LOUIS SAUER, Architects, 1822 Cherry St., Philadelphia 3, Pa.

JOHN B. ROGERS, JEROME K. NAGEL, principals in firm of ROGERS/NAGEL, Architects, 434 Symes Building, Denver 2, Colo.

E. D. ROSENFELD, M.D., AND ASSOCIATES, Consultants in Program Development and Planning for Hospital and Health Services, 30 Rockefeller Plaza, New York 20, N.Y.

SERVICE ENGINEERING ASSOCIATES, INC., Consultants in Construction Planning, 932 Ashby St., N.W., Atlanta 18, Ga.

WILLIAM SMULL, Architect, 575 Madison Ave., New York 22, N.Y.

JOHN C. SPRAGUE, P.E., Concrete Technologists, Assoc., Services in Concrete and Concreting Materials, 104 Oakmont Drive, Marietta, Ga.

MARVIN D. SUER, WALTER R. LIVINGSTON, JR., principals in firm of SUER AND LIVINGSTON, Architects, 1309 Architects Building, Philadelphia 3, Pa.

New Branch Offices

LEO KORNBATH ASSOCIATES, Architects-Interior Designers, 1819 L St., N.W., Washington, D.C.

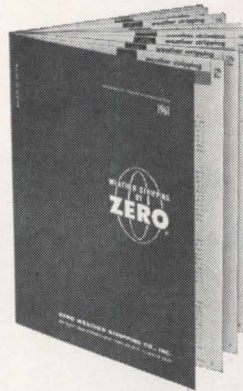
Name Changes

SCHOELL AND GERITZ, Architects, 317 Fourteenth St., Del Mar, Calif. Formerly SCHOELL & GERITZ, DONALD SCHOELL, Architect.

BROWN CHAPMAN MILLER WRIGHT, ARCHITECTS, 1640 Wisconsin Ave., N.W., Washington 7, D.C. Formerly, firms of LEON

Continued on page 212

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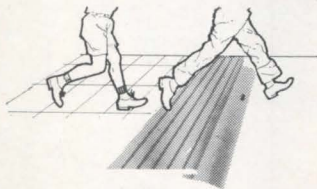
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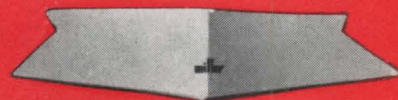
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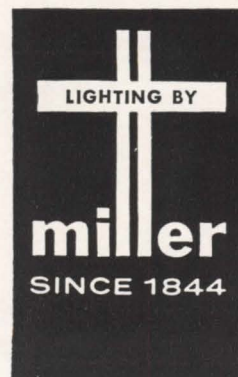
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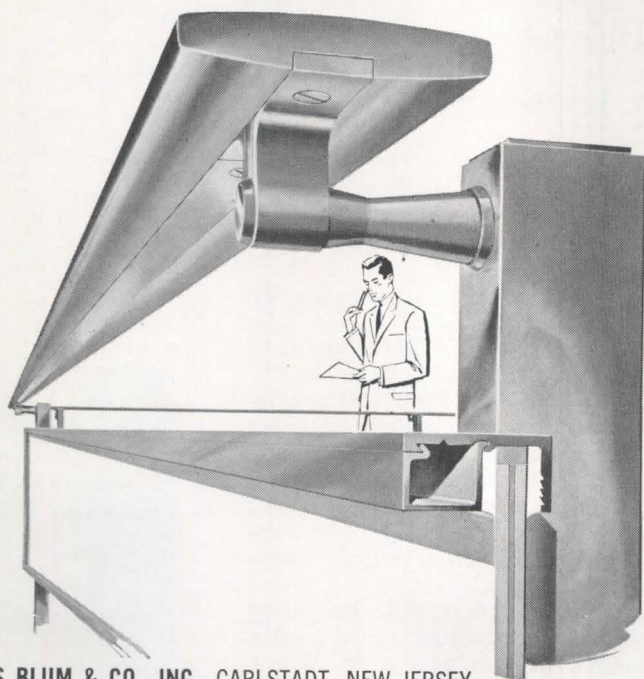
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Continued from page 210

BROWN and THOMAS W. D. WRIGHT, GROSVENOR CHAPMAN, and JOSEPH MILLER.

FLEWELLING, MOODY & HORN, Architects and Engineers, 766 Colorado Blvd., Los Angeles 41, Calif. Formerly, FLEWELLING AND MOODY, Architects and Engineers.

ROWLEY, PAYER, HUFFMAN AND LEITHOLD, INC., Architects and Engineers, 1420 Keith Building, Cleveland 15, Ohio. Formerly, CHARLES BACON ROWLEY AND ASSOCIATES, INC. and ERNST PAYER.

WAYLAND, CLINE & SMULL, Architects, 624 Idaho Building, Boise, Idaho. Formerly, WAYLAND AND CLINE, Architects.

New Partners, Associates

CHARLES P. CLAYTON, FREDERIC M. ROBINSON, JACK WOOD, made Partners; ARTHUR B. GALLION, MALCOLM C. DRUMMOND, JOSEPH M. ROSS, THOMAS A. CAMPBELL, ROBERT A. FOSNAUGH, RONALD D. SCHMIED, made Associate Partners in firm of HARLAND BARTHOLOMEW AND ASSOCIATES, City Planners, Civil Engineers, Landscape Architects, St. Louis, Honolulu, Atlanta, Memphis, Washington, Des Moines, Albuquerque.

WILLIAM E. DUNLAP, JOHN R. WEESE, elected General Partners in firm of SKIDMORE, OWINGS & MERRILL, Architects, New York, N.Y.

DAVID E. AUSTIN, DONAVON D. NICKEL, made Associates in firm of KETCHUM, KONKEL AND HASTINGS, Consulting Engineers, Denver, Colo.

GORDON L. SCHENCK, named Senior Associate in firm of BALLARD TODD ASSOCIATES, Architects, New York City. ROBERT CABRERA and PAUL F. BASILE, named Associates.

WILLIAM J. BAIN, made Partner in firm of NARAMORE, BAIN, BRADY & JOHANSON, Architects and Engineers, Seattle, Wash.

CHARLES D. MORRISSEY, named Partner in firm of PRAEGER-KAVANAGH-WATERBURY, Engineers and Architects, New York, N.Y.

DONALD W. REIDENBAUGH, made General Partner in firm of SINGLETON & REIDENBAUGH, Architects, Lancaster, Pa.

Elections, Appointments

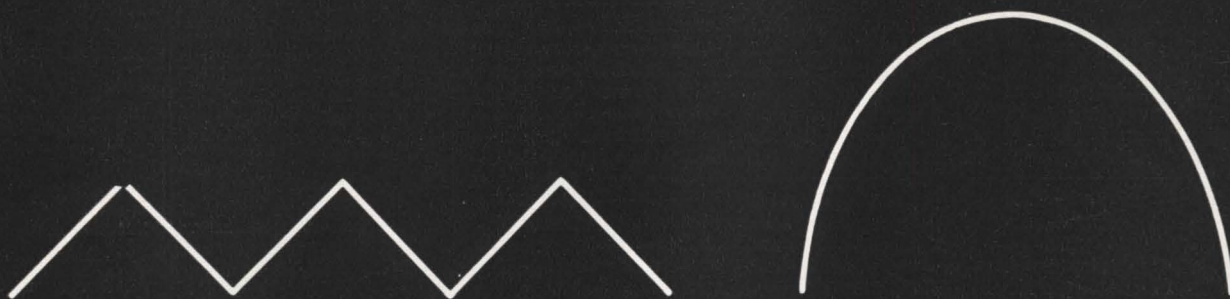
HAROLD MARKS, named Head of the Traffic and Transportation Division of VICTOR GRUEN ASSOCIATES, Architects, Planners, Engineers, Beverly Hills, Calif.

CHARLES J. ALLEN, appointed Assistant Chief Mechanical Engineer in firm of ALBERT KAHN ASSOCIATED ARCHITECTS AND ENGINEERS, INC., Detroit, Mich.

MARK T. JAROSZEWICZ, appointed Senior Designer and Project Administrator in

Continued on page 216

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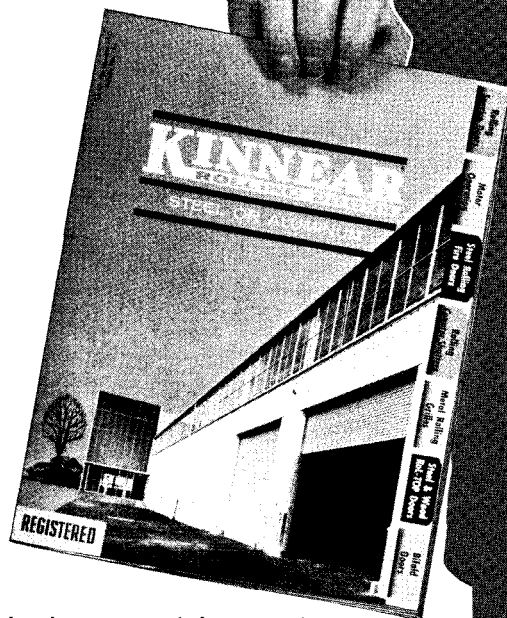
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Continued from page 212

firm of TARAPATA-MACMAHON ASSOCIATES, INC., Architects and Engineers, Bloomfield Hills, Mich.

WILLIAM F. LARKIN, elected to newly created position of Vice-President in Charge of Finance in firm of CHARLES LUCKMAN ASSOCIATES, Planners-Architects-Engineers, Los Angeles, Calif.

DAVID JOHN LEPORE, joined the firm of JOHN S. BOLLES, Architects and Engineers, San Francisco, Calif.

GERALD D. SORENSON, joined the firm of BURKE, KOBER & NICOLAIS, Architects and Engineers, Los Angeles, Calif.

RAY STUERMER, appointed Vice-President in Charge of Design in firm of CHILDS & SMITH, INC., Architects-Engineers, Chicago, Ill.

Luckman Appointed to International Development Committee

CHARLES LUCKMAN, President of the planning-architecture-engineering firm of CHARLES LUCKMAN ASSOCIATES, has accepted an appointment to President Kennedy's Citizens' Committee for International Development.

P/A Congratulates . . .

ERNEST E. BANG, appointed Manager of Advertising and Sales Promotion in firm of REPUBLIC STEEL CORPORATION'S TRUSCON DIVISION.

CORBIE L. WILSON appointed Sales Manager of BOWMAN STEEL CORPORATION.

CLARE STOUT, made Sales Manager in firm of ANDERSEN CORPORATION.

A. WILLIAM REYNOLDS, II, appointed General Manager of the CRAWFORD DOOR COMPANY.

F. ALAN TIARKS, made General Manager in firm of GRANCO STEEL PRODUCTS COMPANY.

J. M. (JACK) WILSON, appointed Vice-President of SARGENT & GREENLEAF OF CANADA, LTD.

FOREST S. BURTCH named General Sales Manager in firm of JOHN A. ROEBLING'S SONS DIVISION, THE COLORADO FUEL AND IRON CORPORATION. A. LESTER PATTERSON succeeded to BURTCH's former position as General Product Manager for Construction Materials, and LLOYD E. HILL was promoted to Product Sales Manager.

JOSEPH E. COMO appointed Sales Manager in firm of PLY-O-GLAS COMPANY OF AMERICA.

RICHARD F. DORRELL appointed Advertising Manager for AMERICAN STEEL AND

WIRE DIVISION of the UNITED STATES STEEL CORPORATION.

DANTE C. FABIANI elected President in firm of CRANE COMPANY.

ROBERT J. McCAFFERTY appointed National Sales Manager of CALCINATOR CORPORATION.

JOSEPH J. MERRICK appointed Vice-President in Charge of Sales for NORMAN PRODUCTS DIVISION, JOHN J. NESBITT, INC.

H. R. SHAMPAINE elected Chairman of the Board, T. B. CATLIN, JR. elected President of SHAMPAINE INDUSTRIES, INC.

ADOLPH VOGE, JR. promoted to General Sales Manager in firm of CURTIS COMPANIES INCORPORATED.

ROBERT E. WILLIAMS named Vice-President, Sales, of THE YOUNGSTOWN SHEET AND TUBE COMPANY.

PAUL MEESKE, named to the new post of Manager of Building Products in firm of THE DOW CHEMICAL COMPANY.

New Manufacturing Headquarters

PIONEER INDUSTRIES, manufacturers of PIONEER FIREPROOF DOORS and PIONEER MAIL CHUTES, has moved their plant and offices to new and expanded facilities at Washington Avenue in Carlstadt, N. J.

Miscellaneous

SHARON STEEL CORPORATION has retained the services of HUNTER, HEIGES & GROSS of Sharon, Pa., registered architects and engineers, to serve as architectural consultants to the company and its customers.

GERING PLASTICS, DIVISION of STUDEBAKER-PACKARD CORPORATION, Kenilworth, New Jersey, is now National Sales Agent for "CELLULITE" expanded polystyrene.

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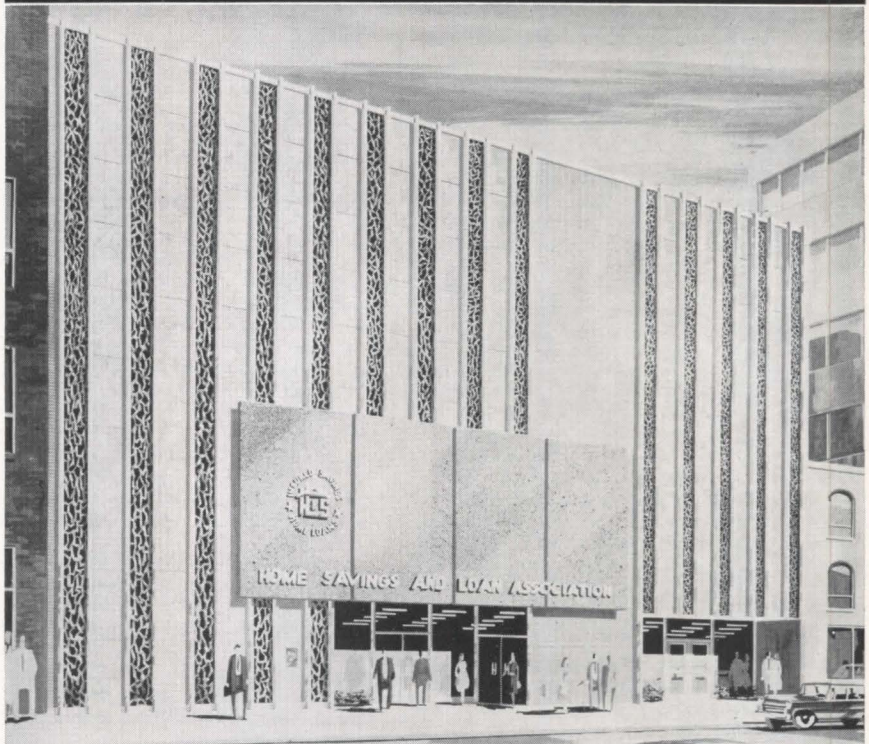
JOHNS-MANVILLE FLOORING DIVISION is being organized from elements of the JOHNS-MANVILLE BUILDING PRODUCTS DIVISION. A. K. HIGBEE is Vice-President and General Manager of the new Division.

SHAYMAN & SALK, Architects, have formed a special convalescent home planning division which will be headed by ARTHUR SALK. The new division has been able to create, in both personnel and facilities, a major counselling source capable of covering all phases of con-

Continued on page 219

IN ATLANTA

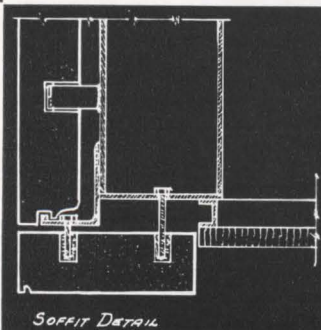
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production techniques and performance testing. Background in research or product development desirable. M.S. or B.S. degree required. Large Research Laboratory, Pittsburgh, Pennsylvania. Submit resume and salary requirements to Box #328 PROGRESSIVE ARCHITECTURE.

STRUCTURAL ENGINEER (P.E.)—Min. 5 yrs. experience designing building frames and foundations. Send resume, salary expected, references, availability to Snyder & Troxel, Consulting Engineers, 300 Denison Bldg., Syracuse, N. Y.

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ARCHITECT NOW IN EUROPE—Desires position with American architectural firm. American citizen, Harvard graduate, A.I.A., New York license, N.C.A.R.B. Ten years experience all phases architectural work both sides of Atlantic. Fluent French. Box #331, PROGRESSIVE ARCHITECTURE.

ARCHITECT—Who has been employed by architectural and engineering firms would like to discuss association or partnership with architect and/or engineer who needs help. Broad experience in all phases of general practice including commercial, public, industrial, schools and hospitals. All inquiries will be answered in the strictest confidence. New England preferred. Box #332, PROGRESSIVE ARCHITECTURE.

EXPERIENCED ARCHITECTURAL DRAFTSMAN—

Currently employed as senior draftsman, eleven years experience, 35 years old, married, 3 children, desires permanent relocation with a progressive firm which offers an opportunity for advancement. Resume on request. Box #333, PROGRESSIVE ARCHITECTURE.

OHIO REGISTERED ARCHITECT—Age 35, B.S. in architecture University of Illinois, 11 years experience in all phases of practice. Presently associated with Cleveland area architect. Desire new permanent association or partnership, will consider relocating south or west of present location. Available after February. Resume upon request. Box #334, PROGRESSIVE ARCHITECTURE.

PRACTICING ARCHITECT—A.I.A. registered Ohio, European post-graduate M.A., exceptional training, experience and honors in design. Handled a number of large-scale and small projects in collaboration with other firms. Executed work in city planning and site planning. Wishes position with progressive firm, leading to possible firm affiliation. Box #335, PROGRESSIVE ARCHITECTURE.

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REGISTERED ARCHITECT—(Written examination), age 35. Bach. of Arch. Degree. 10 years experience in leading architects' offices. Desires permanent association or partnership in modern office. Willing to invest in partial or major firm interest and will consider location anywhere in U.S. Resume and photo on request. Box 336, PROGRESSIVE ARCHITECTURE.

REGISTERED ARCHITECT—29, married. 6 years experience in design, engineering, construction, administration, project coordination and client relations. Industrial and commercial projects. Resourceful and capable. Seeks challenging and responsible position with growing professional organization or corporation. Firm must offer permanent career opportunity. Prefer Northeastern states. Box 337, PROGRESSIVE ARCHITECTURE.

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Name Changes

The F. C. RUSSELL COMPANY has changed its name to RUSCO INDUSTRIES, INC.

CALORIC APPLIANCE CORPORATION has changed its name to CALORIC CORPORATION.

The AMERICAN SOCIETY FOR TESTING MATERIALS has officially changed its name to the AMERICAN SOCIETY FOR TESTING AND MATERIALS.

New Department

GREAT LAKES CARBON CORPORATION formed the PERMAN PRODUCTS DEPARTMENT to market building products. LYLE R. BOLSTER appointed as department Sales Manager.

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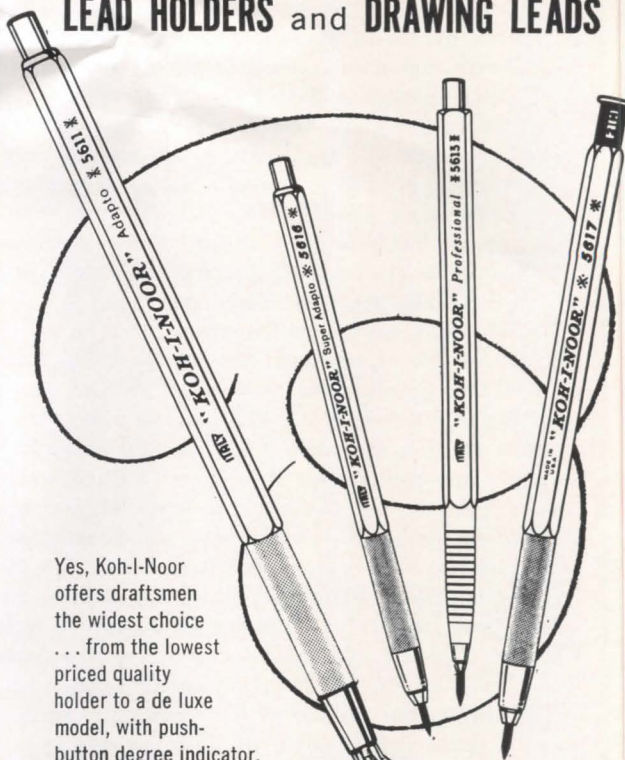
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Thomas H. Leighton

P.S.

The Outsider is still a phenomenon in our society. The person who for some reason can't fit into the normal day-to-day routine of social and business activity, even though he wants to and tries, has more of a problem than the rebel, to whom that routine is either repellent or absurd. The rebel is making a conscious gesture, and there is satisfaction for him in making it. The misfit is simply frustrated. One of the peculiar and miserable aspects of this is that the person who stays outside conventional success patterns is often the most brilliant individual around; most true geniuses fall into this category. One could count many greats in architecture among them: Wright in his middle period; Sullivan in his unhappy later days; Kiesler, Soriano (and others who would be embarrassed at being mentioned) at the present time. Real tragedy often stalks these outsiders; frustration at nonacceptance can end in a strong rebellious gesture, in bitterness, or in some form of self-destruction. Wright ended his career busy and accepted, but rancorously bitter—particularly at "Mies, Gropius, and their gang." I have just come across a letter he wrote me in which he said, "You have no way of knowing what I have been through in my life, nor would I tell you if I could. If I insult these people it is only because they deserve it." Sullivan's tragic end is well known.

Sometimes it is difficult to know whether the inability to "fit" is the fault of society, which is never too ready to accept the individual genius on his own terms (which is the only way such a person should be accepted), or the fault of oddities in personality which are so often a part of above-normal creativity. Those fated to be outsiders often seem to make it impossible for friendship, for objective assistance, for even personal human contact to be offered them. Le Corbusier, with his great arrogance, is apparently such a one: I have heard many stories recently of his rejection of even old friends. Architecture is full of prima donnas, many of whom are simply acting a role to attract attention; I am not thinking of them, but rather of truly creative people who, for reasons that they apparently cannot control, seem destined to live their lives outside the realm of normal relationships.

I have been thinking along these lines because of the very sad death of a true outsider whom I liked very much, and whom I tried to help from time to time—Walter Jan Duschinsky. Walter was an architect, and also somewhat of a genius in the fields of electronics and communications. The communications systems in the UN buildings are largely his devising. He acted as consulting editor to two important issues of P/A, including the only thorough study of the implications of communications, electronics, and automation to architecture (he termed it CELA architecture), and he was author of several important books in the field. It was typical of Walter's frustrations that the issues did not attract great attention, and that the books did not sell very well. He worked with or for a half dozen architectural firms in New York, including Raymond & Rado and Victor Gruen. All of these people will testify that he was a genius in his fields; none of them found it possible to maintain him as a consultant or an associate in any normal way—and none of them could find an abnormal way that would work. A Czech, he arrived in New York after the war with no papers, and when I first met him he was traveling to all parts of the world with a huge, self-devised passport loaded with seals, impressions, signatures, stamps, and so on that was completely meaningless but so baffled and impressed border officials that he had had no trouble. I began to know what sort of a friend I had, however, when the "passport" ceased working and I had a cable from Japan asking for character references. Walter was not dishonest; he simply had no understanding of or use for conventional "honesties." His casual disregard for accepted relationships, however, made it difficult for people operating in a normal way to use his talents. Recently he had been in financial troubles; yet he found some way to travel. Within the last few months he sent me cards from South America and from Europe. Shortly before I had news of his death, he wrote me a letter saying that he was discouraged because he could not find a way "to make a constructive contribution to man's progress." He was, in both a literal and a figurative sense, a displaced person.